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# ***WATERFRONT PLACE***

*DESIGN WEST PRESENTATION*

*28/04/2020*

# INTRODUCTION

**Summary Description:**

A mixed-use development to provide offices, hotel and ground-floor food and beverage uses.

**Site Description:**

The site occupies an area of approximately 0.33 hectares (ha) within Bristol City Centre and comprises a roughly rectangular plaza in the harbourside area of Bristol, with an additional smaller ‘spur’ to the north-west currently used as a service yard. A number of trees, each enclosed by hedging are present near each boundary of the plaza.

**Status:**

The land is owned by Bristol City Council and Railpen/Bell Hammer has been selected as preferred developer to deliver the proposed scheme. A Development Agreement has been signed and the applicant is currently in pre-application discussions with the Local Planning Authority.

**Project Team:**

Development Manager  
Bell Hammer  
Contact: Joel Hawkins  
*joelhawkins@bellhammer.co.uk*

Architects:  
Allford Hall Monaghan Morris  
Contact: Stephen Taylor  
*staylor@ahmm.co.uk*

Planning Consultant:  
Barton Willmore  
Contact: Daniel Osborne  
*Daniel.Osborne@bartonwillmore.co.uk*

**Approximate outline areas:**

Offices

127,658 sq.ft  
GIA

Hotel

61,289 sq.ft GIA  
151 rooms

F&B

7,999 sq.ft  
GIA

**Planning Context:**

Full planning permission will be sought to reflect the site’s location within the City Docks Conservation Area.

The proposed scheme design reflects the requirements (of Policy BCS2 of the Bristol Core Strategy, 2011, BCAP41 and BCAP10 of the existing Local Plan, SA102 of the Bristol Central Area Plan, 2015 and draft Policy DS1 of the Local Plan Review, 2019) for active ground floor uses onto Millennium Square (hotel), the Amphitheatre (food and beverage), and Bordeaux Quay (food and beverage), and a mixed-use approach to development. The upper level uses are proposed to be for hotel and offices uses. This not only reflects the planning policy context but also the market interest, which if for high quality office accommodation, more overnight bed spaces, and more and varied restaurants, bars and entertainment around the dockside.

The design of the buildings takes account of the Conservation Area location and the local distinctiveness, in accordance with policies BCS21 of the Core Strategy, Site Allocation and DM26-31 of the Development Management Policies, 2015. The buildings designs will seek to pay regard to the area’s industrial heritage and harbour side character, whilst also being a scheme with its own identity. The aim has been to design buildings that distinguishes themselves from the surrounding area in terms of scale, massing, and materials whilst positively contributing to the attractiveness and prominence of Bristol Harbour and the Conservation Area. Through the scale, footprint and orientation of the hotel proposal, improved enclosure is created for Millennium Square, as required by Policy SA102. The office building provides the enclosure for the Amphitheatre and Bordeaux Quay, to the extent that the site boundaries allow.

The proposed scheme design seeks to safeguard and enhance key views and it is appreciated that the site falls within the viewing cone from Windmill Hill to the city centre and from Pero’s Bridge looking out of the city centre. Cathedral views are acknowledged as being very important.

A key policy theme (BCS13, 14, and 15 of the Core Strategy) is achieving highly performing buildings in terms of sustainable design, construction, and environmental impacts. This is reflected in the I commitment to achieve a minimum BREEAM rating of excellent. It is appreciated that the Council would like to the site become a showcase building for innovative sustainable design and the intention is to deliver this.

The size and layout proposed for the offices provide substantial flexibility in letting strategy thereby reflecting the desires set out in Policy BCS8 (Core Strategy). The hotel is provided on part of the site compatible with the flood zone 2 category, reflecting BCS21. The Planning Obligations and CIL implications are understood. The importance of design, heritage, flood risk, and sustainability is all appreciated.

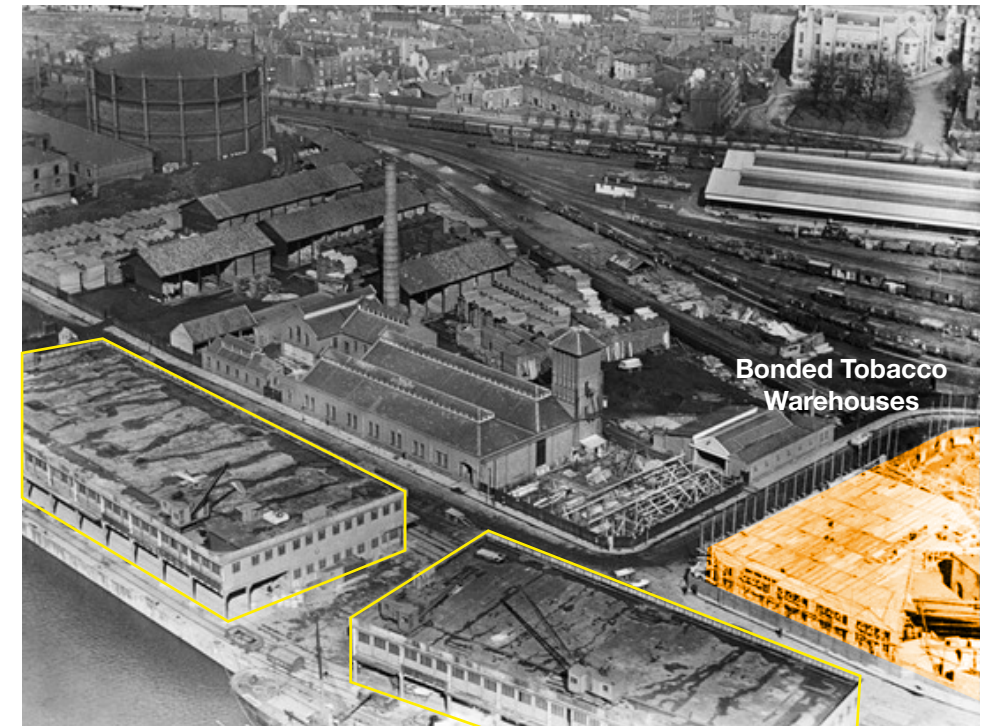
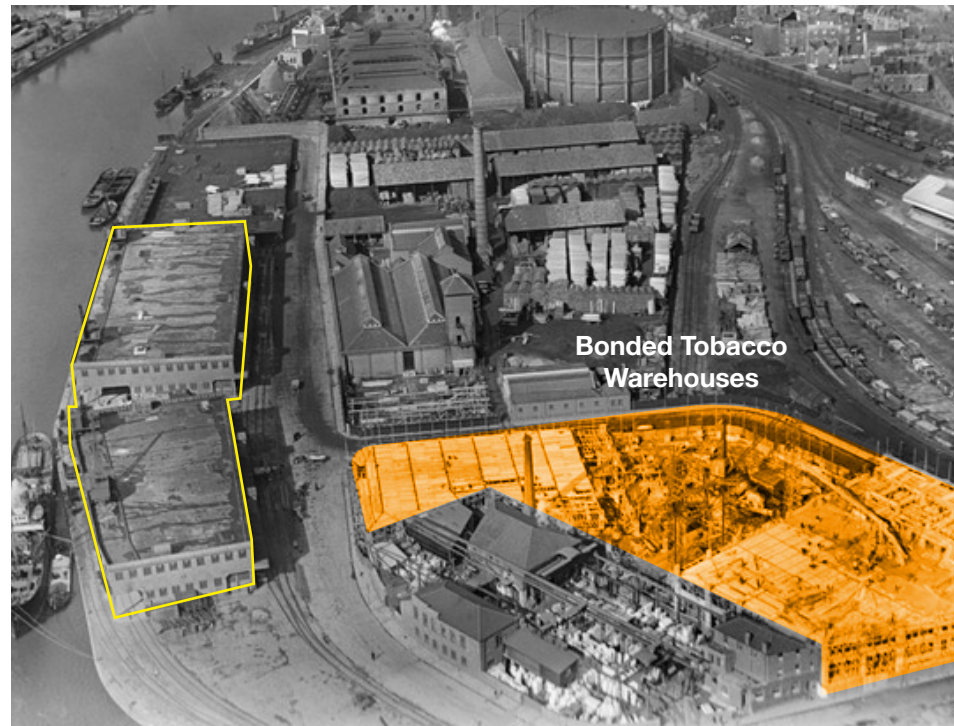
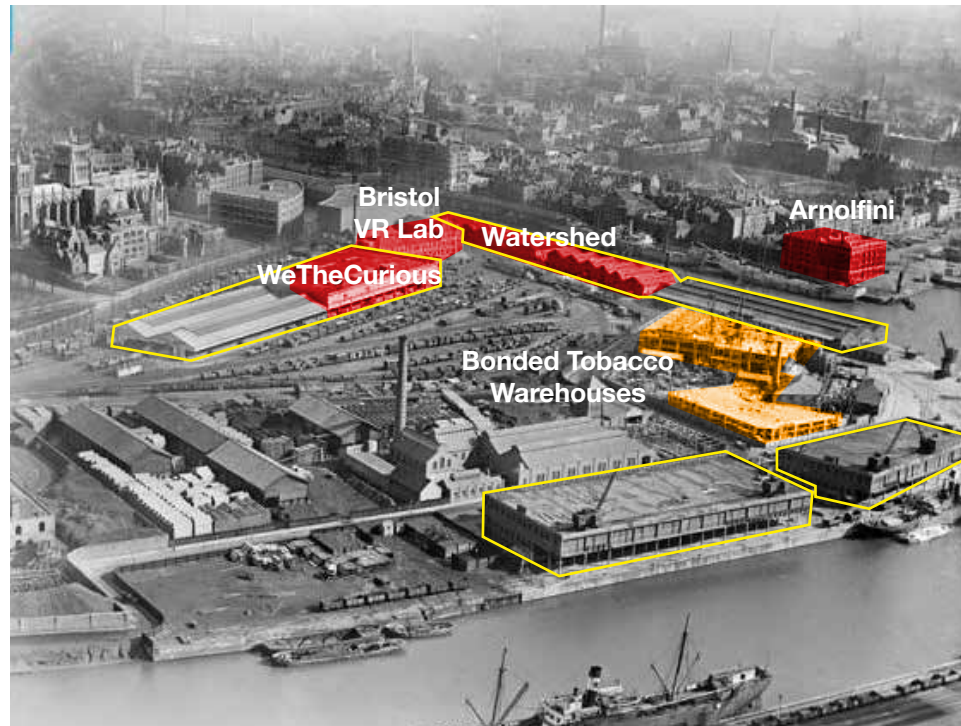
It is considered that the proposed scheme responds well to both the principle and detail elements of applicable planning policy and considerations.

# ***SITE CHARACTER HISTORY***

## *CANON'S MARSH*

### ***EARLY 20<sup>TH</sup> CENTURY***

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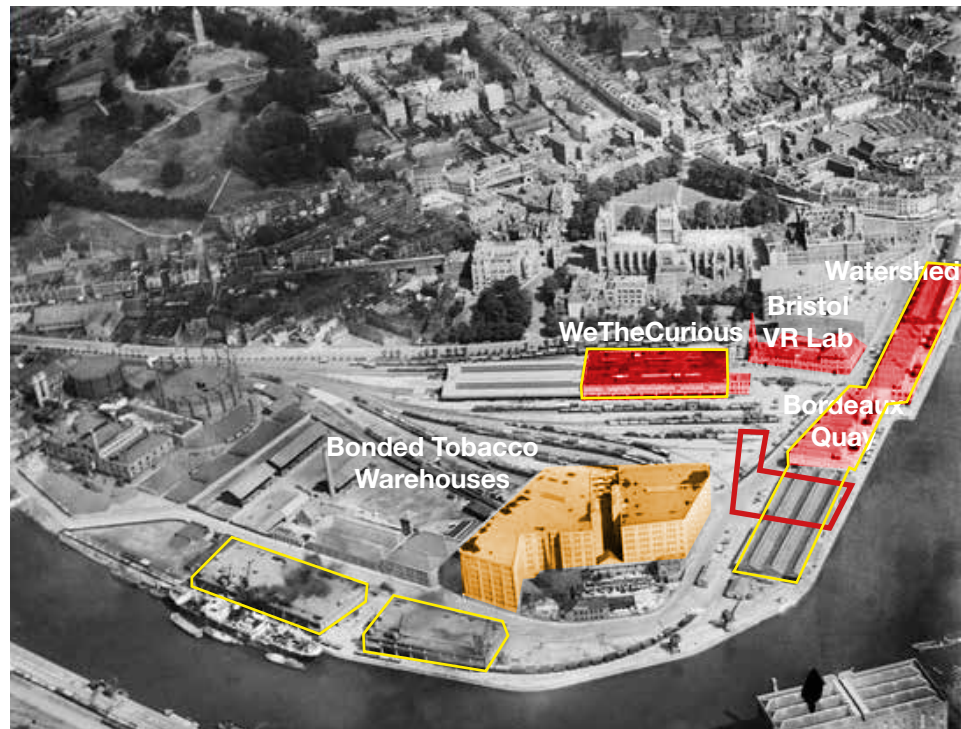
- Site is occupied with low rise transit sheds for storage and trade along the river front.
- Building's architecture height and scale respond to their function.
- High warehouses are starting to emerge from the ground



# ***SITE CHARACTER HISTORY***

## *CANON'S MARSH*

### ***MID 20<sup>TH</sup> CENTURY***



- Space is released as transit buildings become surplus to requirements with the moving of the docks to Avonmouth.
- 7 storey bonded tobacco warehouse is erected on the site.
- Site is mostly derelict throughout the 20th century
- Moorings of leisure boats make use of the floating harbour



# ***SITE CHARACTER HISTORY***

## *CANON'S MARSH*

**1988**



**1991**



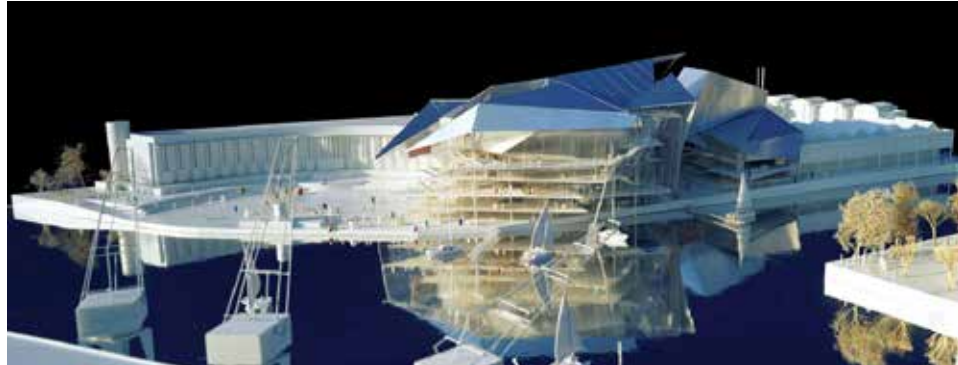
- Site is cleared in 1988 prior to the first wave of Harbourside regeneration in the early 90's with construction of the south west offices of Lloyds Bank in 1991.



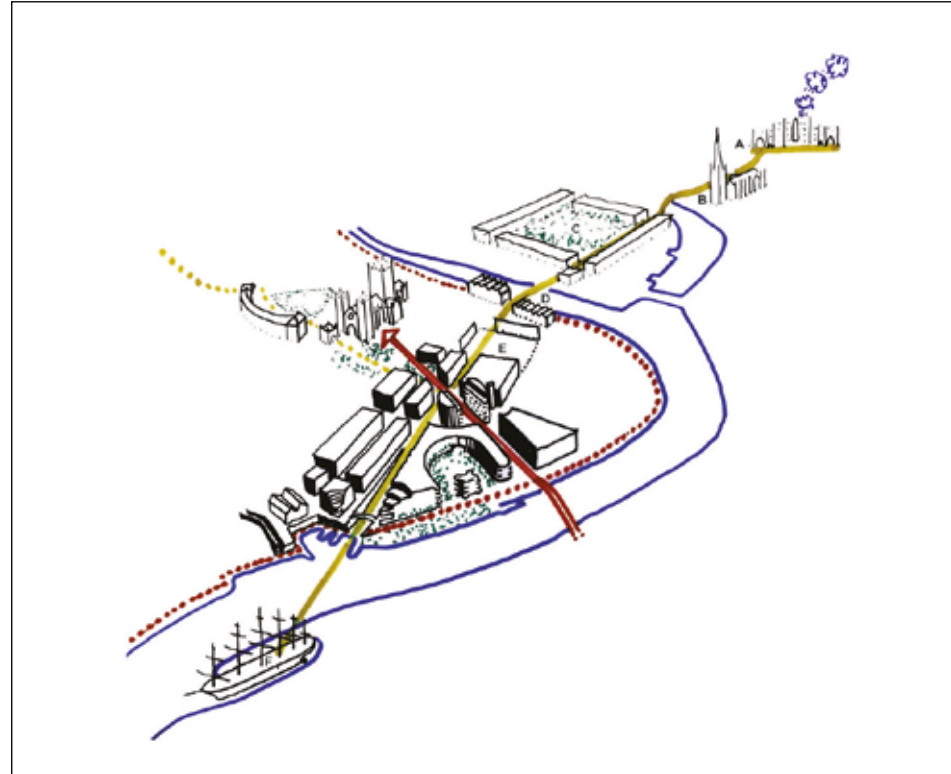
# ***SITE CHARACTER HISTORY***

## *CANON'S MARSH*

**1996**



**2001**



**2010**



- In 1996 Behnisch & Behnisch was, through an international design competition, selected as architects for the Harbourside Centre for the Performing Arts.
- In 1999 the site sees further regeneration with the construction of Pero's footbridge, At-Bristol (now known as WeTheCurious), Millennium Square and the iMax Cinema (now Aquarium)
- in 2001 several bars, restaurants, apartment buildings and offices are erected as part of the Harbourside Masterplan by Cullinan Studio.
- Watershed, Bordeaux Quay, WeTheCurious, Bristol Lab and Arnolfini are some of the buildings retained from the industrial era that have been reinvented to be adapted to their new function, and only Waterfront Place remains empty since the site regeneration



# **SITE CHARACTER HISTORY**

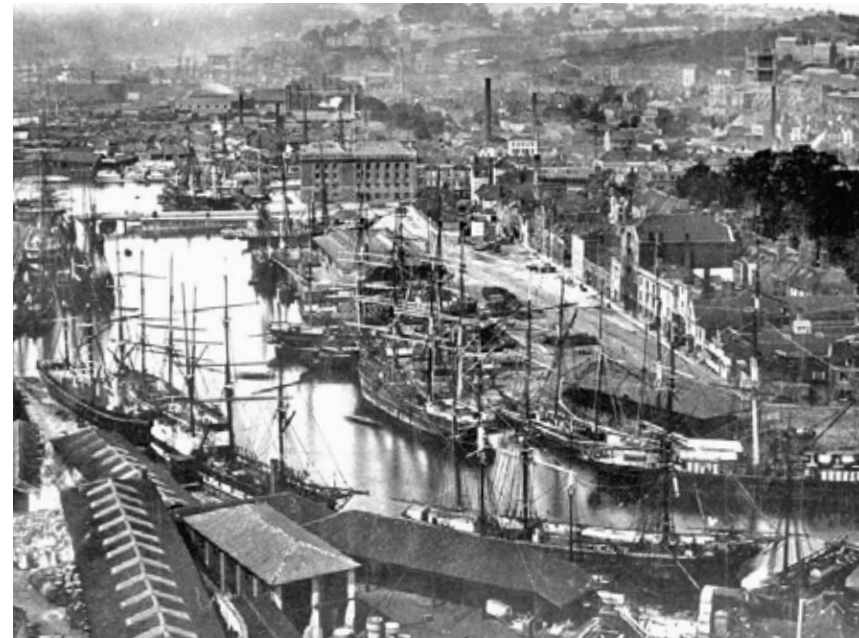
## *HARBOURSIDE MARITIME HERITAGE*

Since the XV century vessels from Bristol were regularly travelling to Iceland and America.

By 1670, the city had 6,000 tons of shipping of which half were to import tobacco.

Patterson's yard within the harbour was used for the construction of many ships notably Brunel's SS Great Western in 1838 and the SS Great Britain in 1843. They Were some of the largest ships to have been built at the time.

### Maritime heritage



Aerial view Bristol Harbour - late XIX century  
Large boats populate the activity within the Floating Harbour

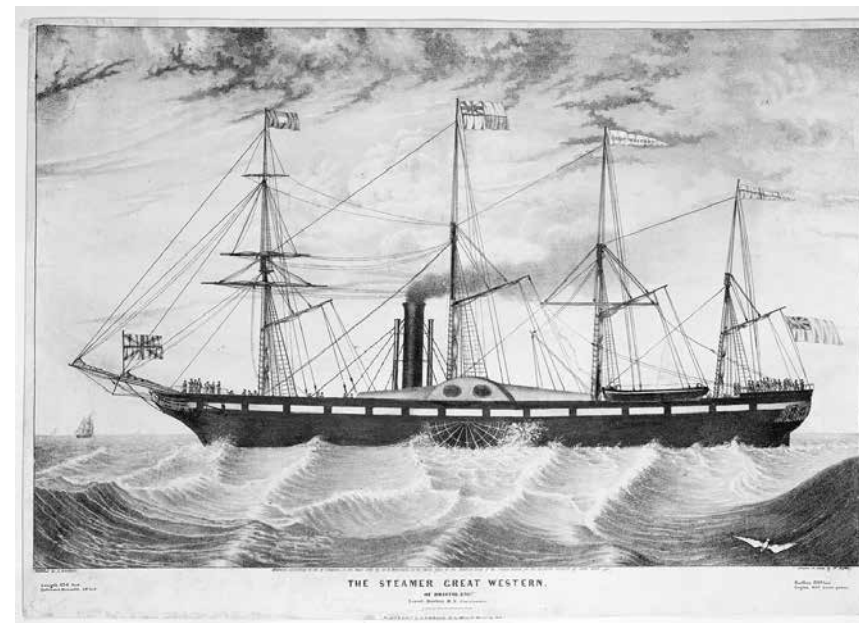


St Augustine's Reach/ Broad Quay 1939  
Large boats at the heart of the city

### Shipbuilding design



SS Great Britain - Launch 1838



SS Great Western - Launch 1843



HMS The Formidable moored off  
Portishead Point, 1869



Launch of he last ship built in Bristol, 1976



# ***SITE CHARACTER HISTORY***

## ***HARBOURSIDE INDUSTRIAL HERITAGE***

The industrial buildings of Bristol harbourside existed as a function of the distribution of global trade between rail and ship.

The convergence of rivers and creation of the floating harbour allowed this industry to prosper. One can not therefore consider the heritage buildings as references without also considering the transport functions that created them.

Bristol harbourside can also be defined by rail and ship; being by the boats and the transient nature of rail freight.

### Rail freight

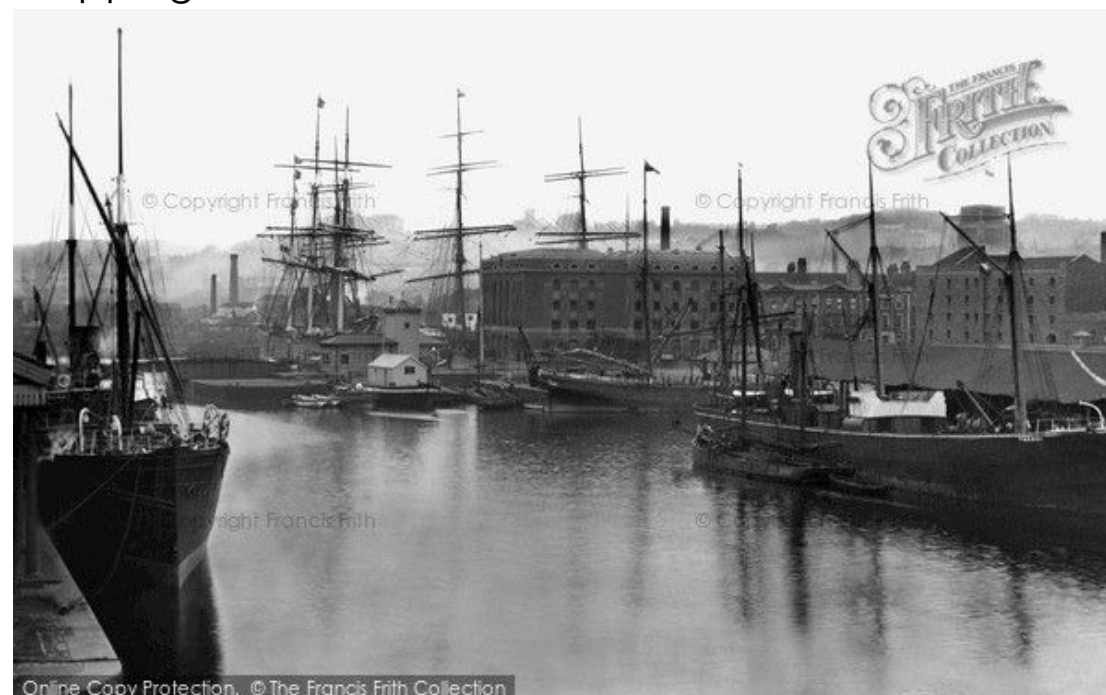


Beneath a transit shed on Canon's Marsh.  
Large structural spans in concrete to provide space for rail freight.



Typical freight carriage.  
Varieties of colour and construction in steel and timber.

### Shipping



19th Century shipping.  
Masts and rigging



20th Century shipping.  
Funnels and bridges.



# SITE CHARACTER HISTORY

## HARBOURSIDE ARCHITECTURE

The industrial heritage of the Harbourside area is dominated by simple buildings with an integrity born out of their function.

The architecture of the bonded warehouses, stores and transit sheds followed two robust typologies,

- Solid masonry with punched windows.
- Concrete frame with infill.

These also appear to follow similar design principles:

- Repetitive fenestration on an orthogonal grid.
- Window openings that relate to the function within; small windows where goods are stored for longer periods, larger openings for transit sheds where goods moved through more frequently.
- Vertical circulation cores expressed with subtle shifts in facade lines.
- Corners of the bonded stores appearing more solid, presumably to assist with structural stability.

### Solid Masonry with Punched Windows.



Bonded Warehouses on Canon's Marsh.  
Solid facades with small punched windows, needed for limited light and air.  
Note the expressed cores.



Tobacco Warehouse, Cumberland Basin.  
Note expressed central core and solid book-end corners; regular grid of small windows in between and black brick base.

### Concrete frame with infill.



Bordeaux Quay Transit Shed.  
Concrete frame to allow flexibility of infill. Some solid, some fully glazed.



'M-Shed' Transit Shed.  
Expressed concrete frame with brick or metal infill.



# HARBOURSIDE CONTEXT

## VISUAL BASE LINE ANALYSIS

### THE HARBOURSIDE KINETIC VIEW

The Harbourside character is analysed utilising a 13 minute walk or ‘kinetic view’ from Brunel’s SS Great Britain to Merchant’s Quay.

It is recognised that the Harbourside is experienced in motion and from multiple points, rather than from specific key viewpoints.

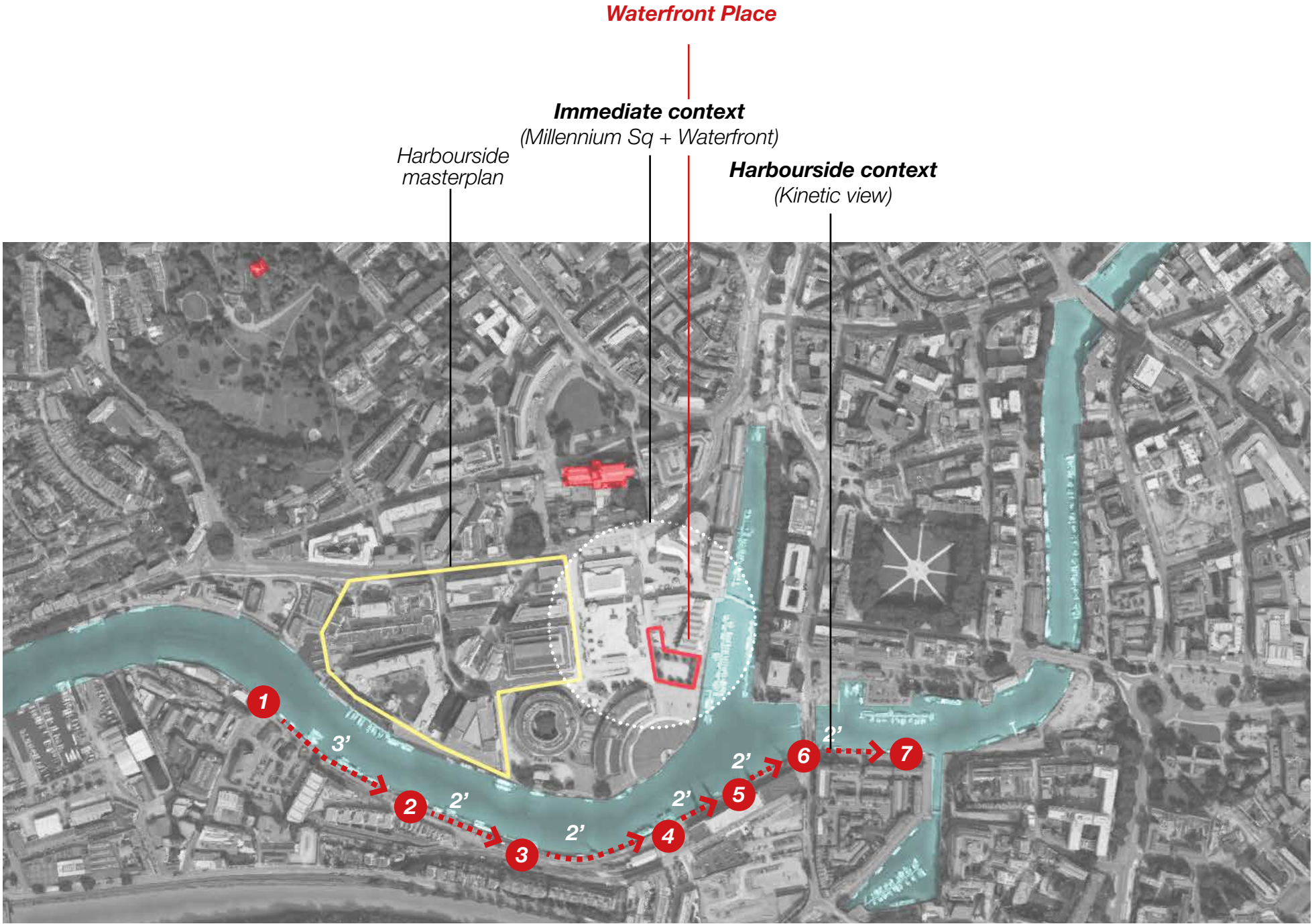
This analysis aims to respond to this urban experience from a pedestrian perspective.

### WHAT DEFINES CHARACTER?

...the aggregate of features and traits that form the individual nature of some person or thing.

The following slides analyse the character of the harbourside from its different context.

- Architectural Character
- Local Heritage
- Height & Scale
- Prominence



Site Plan showing view points for this assessment



# **HARBOURSIDE CONTEXT**

## ARCHITECTURAL CHARACTER

**IEWS ARE INDICATIVE ONLY**



View from SS Great Britain - Ferry Landing



View towards Cathedral Walk



View from Princess Wharf



View from Museum Square  
Arrival from Wapping Wharf/ Gaol Ferry Bridge



View from M-Shed Entrance



View from Prince Street Bridge



View from Merchants Quay

### **HARBOURSIDE CHARACTER**

- Mix of uses - mainly residential and commercial use, with bars limited to the west side of St Augustine's Reach.
- None of the new developments design responds to the industrial heritage of the area.
- There are no active frontages at ground level from Millennium Promenade to Waterfront Place.
- There is no public access use buildings



# HARBOURSIDE CONTEXT

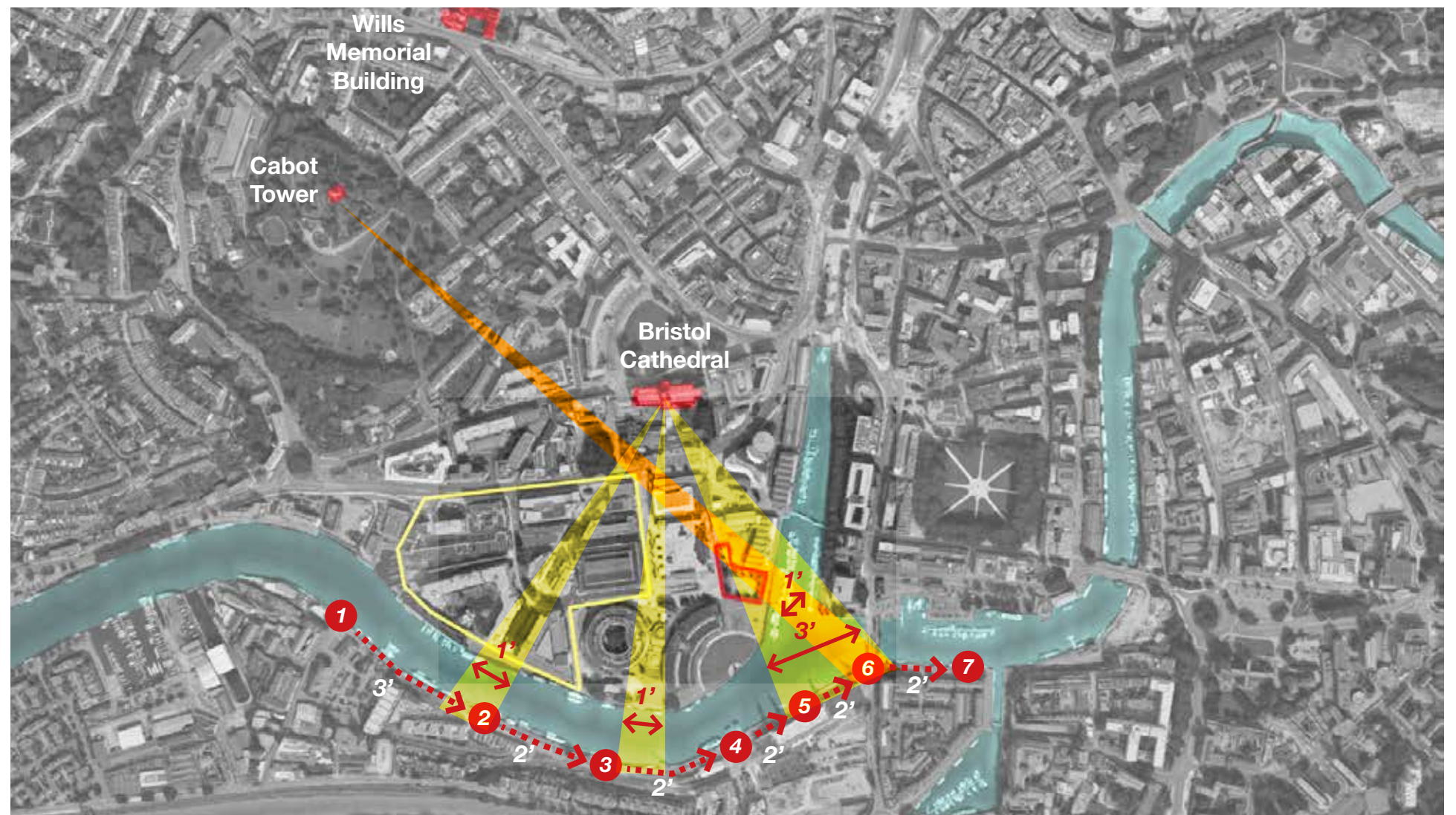
## HERITAGE ASSETS ANALYSIS

### IMPACT ON VIEWS TO LOCAL HERITAGE

Following an initial meeting with Historic England, we were asked to carry an assessment of the impact of the proposed scheme on the following local heritage assets:

- Wills Memorial Building
- Cabot Tower
- Bristol Cathedral.

As the Harbourside is experience in motion, our study measures the time in the kinetic view while these assets are seen, as demonstrated in the views shown on the following slides.



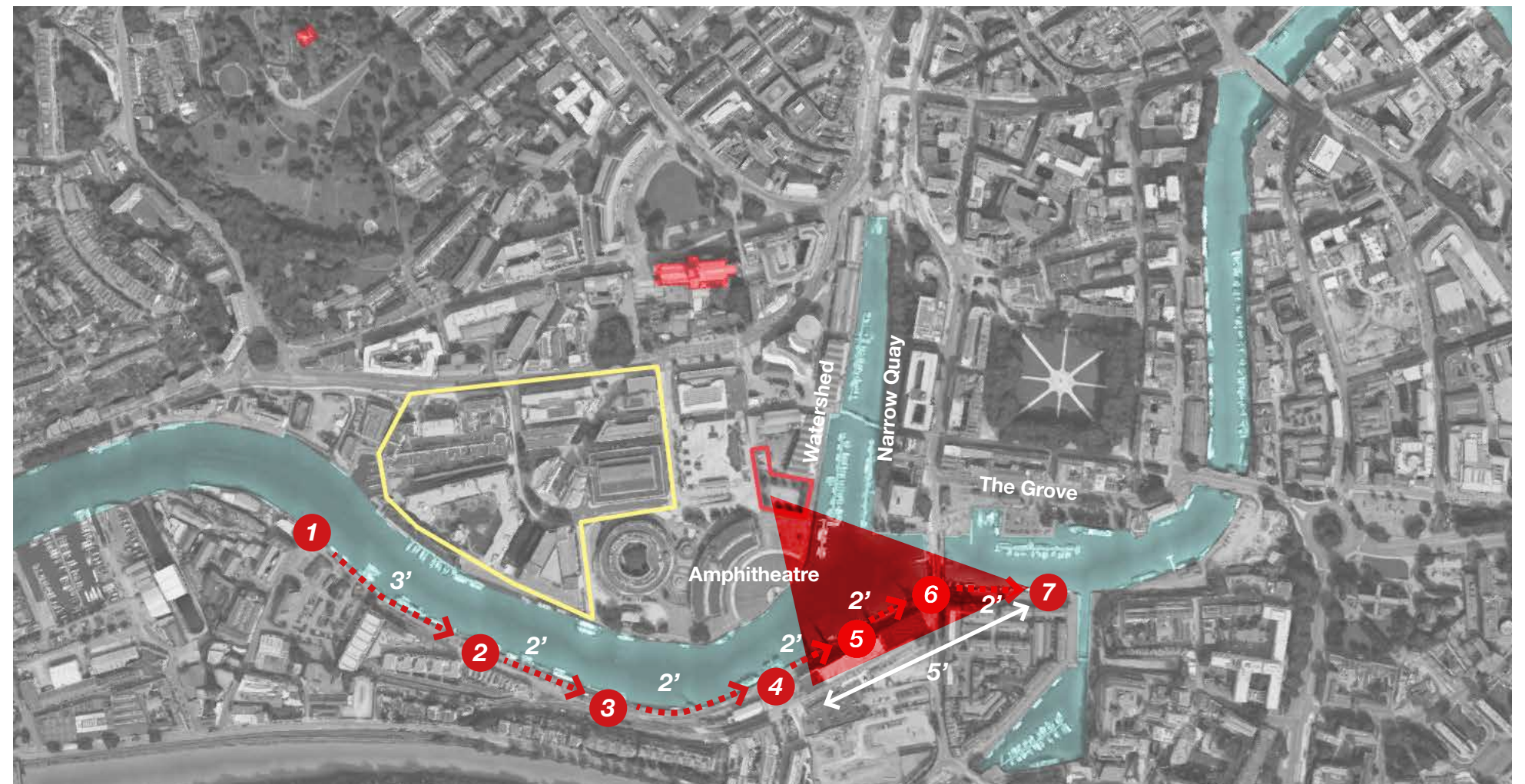


# ***HARBOURSIDE CONTEXT***

## ***PROPOSED SCHEME IN THE KINETIC VIEW***

### ***PROPOSED SCHEME IN THE HARBOURSIDE KINETIC VIEW***

The proposed scheme appears in the foreground of the kinetic view during 38% (5 minutes) of the time, as shown in the images on the next slide.





# HARBOURSIDE CONTEXT

## HERITAGE ASSETS ANALYSIS

VIEWES ARE INDICATIVE ONLY



View from SS Great Britain - Ferry Landing



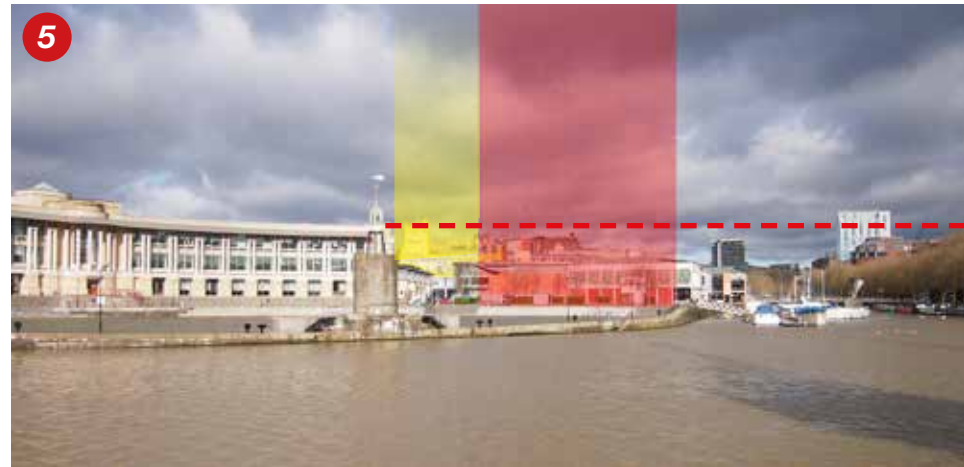
View towards Cathedral Walk



View from Princess Wharf



View from Museum Square  
Arrival from Wapping Wharf/ Gaol Ferry Bridge



View from M-Shed Entrance



View from Prince Street Bridge



View from Merchants Quay

### IMPACT ON VIEWS TO LOCAL HERITAGE

- Wills Memorial is not visible along the 13 minutes kinetic view.
- An upper section of Cabot Tower is seen above Lloyds Building from Prince Street Bridge only.
- Bristol Cathedral is seen over 5minutes along the view, it is partially obscured in the view from Prince Street Bridge (view 6), however any scheme over Lloyds Bank height will obscure this view in the same way (views 5+6)

Waterfront Place      Bristol Cathedral

Cabot Tower



# HARBOURSIDE CONTEXT

## BUILDING HEIGHTS ANALYSIS

### BUILDING HEIGHTS

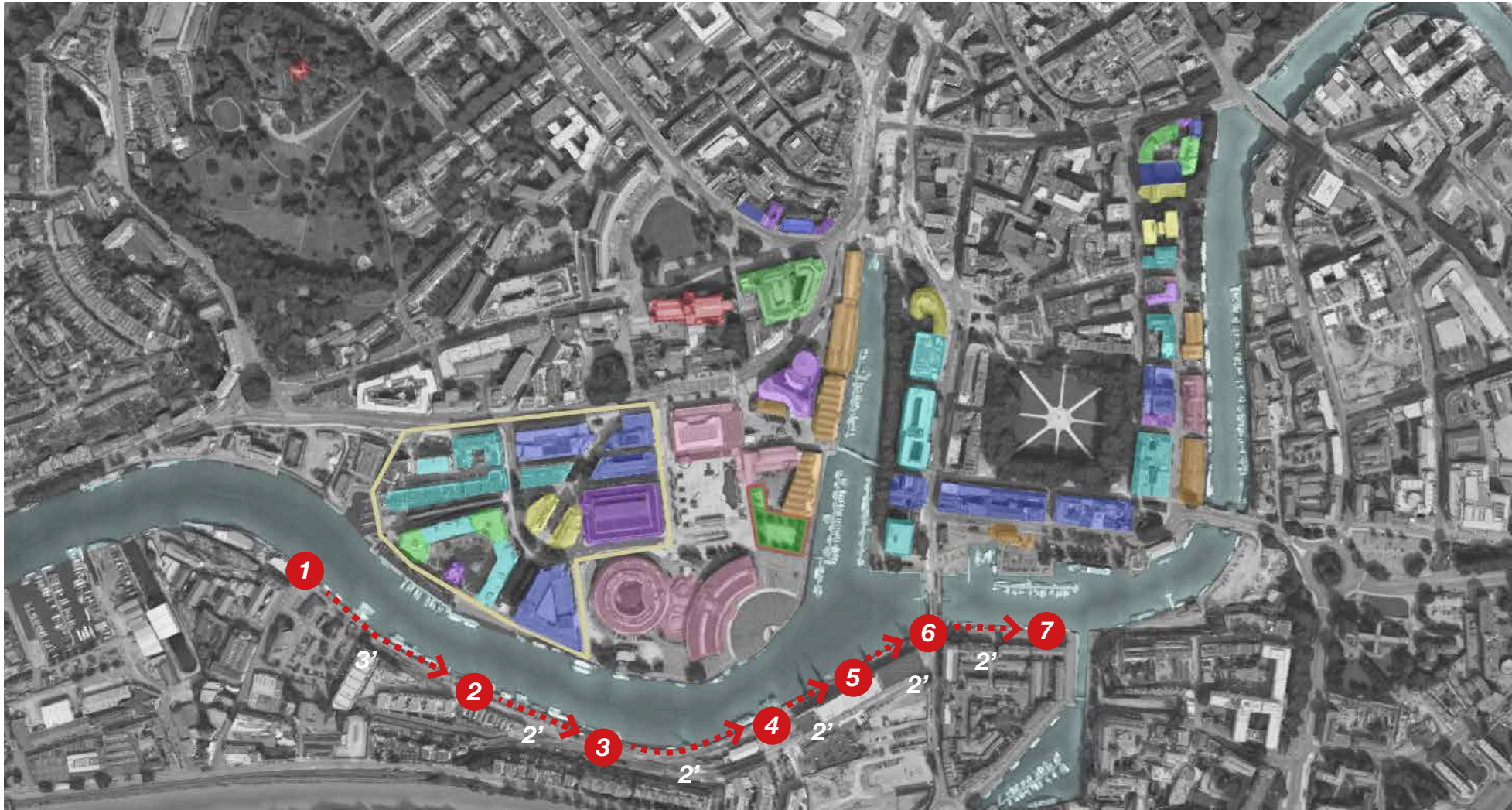
The map in this slide shows the number of building storeys around Waterfront Place site.

This assessment has been extended to the buildings facing the harbourside up to Bristol Bridge to analyse the wider context of the floating harbour.

From the 52 buildings analyse the breakdown of number of storeys is as follows:

<div></div>	2-Storeys	14.8%
<div></div>	3-Storeys	7.4%
<div></div>	4-Storeys	14.8%
<div></div>	5-Storeys	22.2%
<div></div>	6-Storeys	24.1%
<div></div>	7-Storeys	9.3%
<div></div>	8+-Storeys	7.4%

The above figures demonstrates that in this area over 63% of the buildings are over 5-storeys in height, 41% of which are over 6-storeys in height.







View from SS Great Britain - Ferry Landing



View towards Cathedral Walk



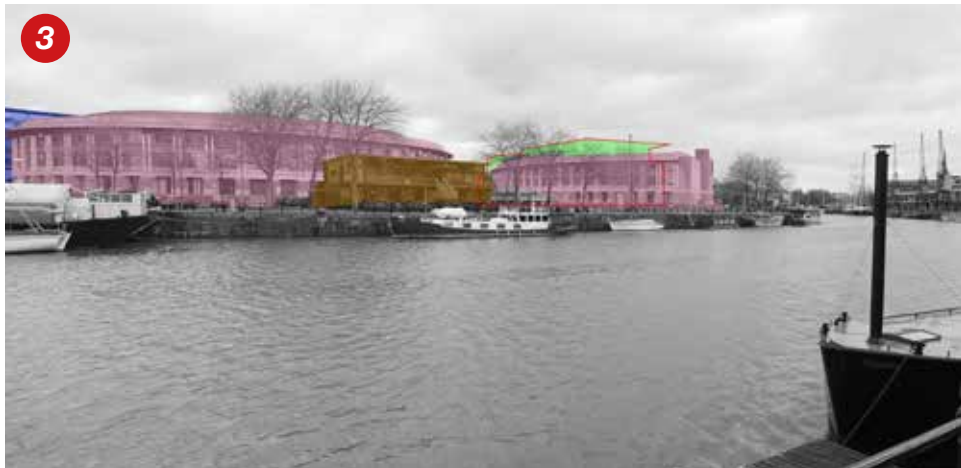
View from M-Shed Entrance

BUILDING HEIGHTS

- Most of the buildings within the Harbourside Masterplan exceed 5-storeys in height, some reaching 7 & 8 storeys (as shown on views 1,2 & 4)
- At 7 storeys, the proposed scheme is of a similar scale to new developments across Canon’s Marsh as well as on the east side of St Augustine’s Reach and the Grove.
- Only the wharf buildings on the west side of St Augustine’s Reach, that remain from the site’s industrial heritage are lower, solely because they respond to the function for which they were built.

KEY

	2-Storeys
	3-Storeys
	4-Storeys
	5-Storeys
	6-Storeys
	7-Storeys
	8-Storeys



View from Princess Wharf



View from Museum Square  
Arrival from Wapping Wharf/ Gaol Ferry Bridge



View from Prince Street Bridge



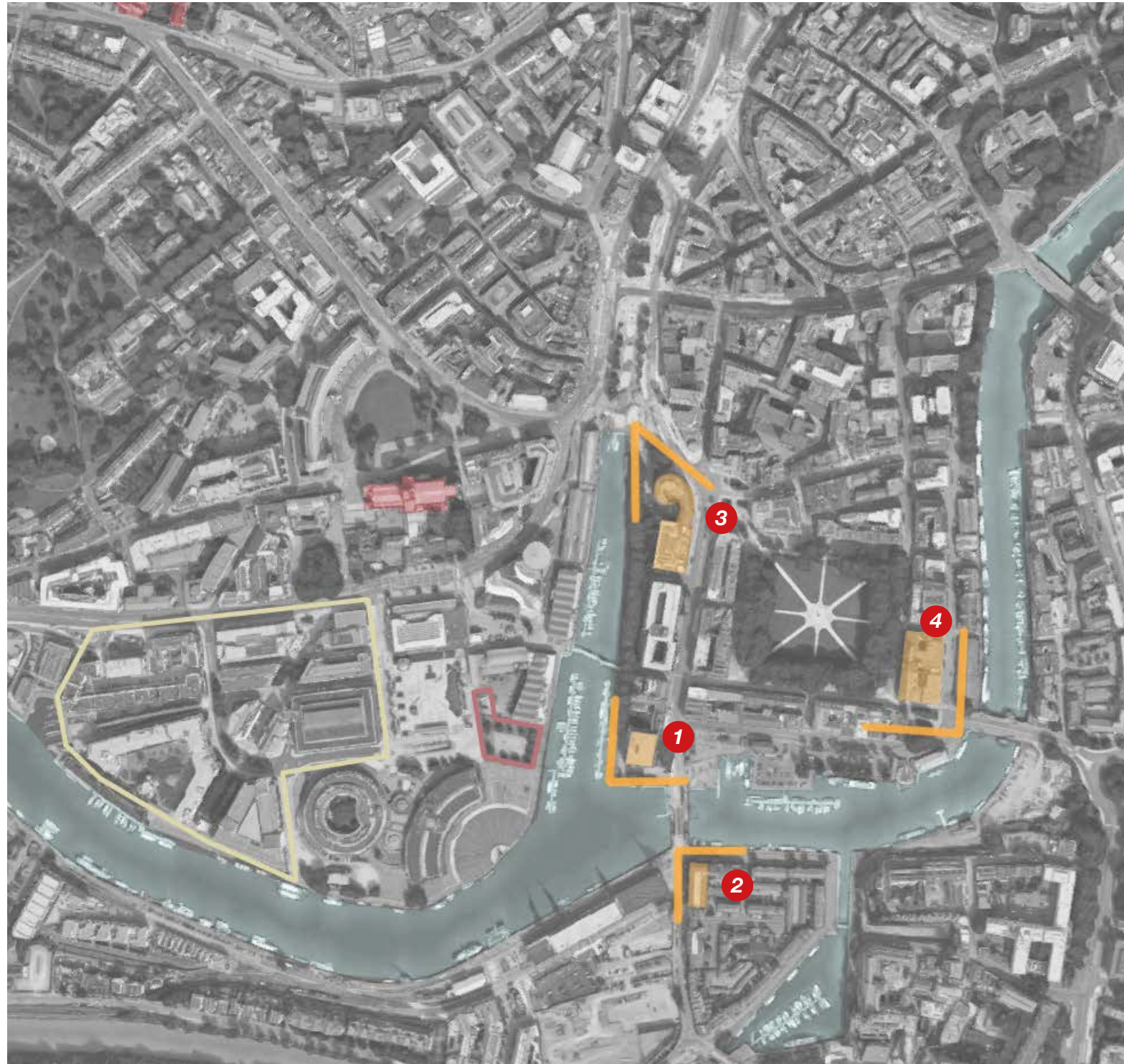
View from Merchants Quay



# HARBOURSIDE CONTEXT

## PROMINENT CORNER BUILDINGS

VIEWES ARE INDICATIVE ONLY



### TALL CORNER BUILDINGS

There are a number of instances around the floating harbour area where the buildings on the corner of a row are taller than their immediate neighbours.

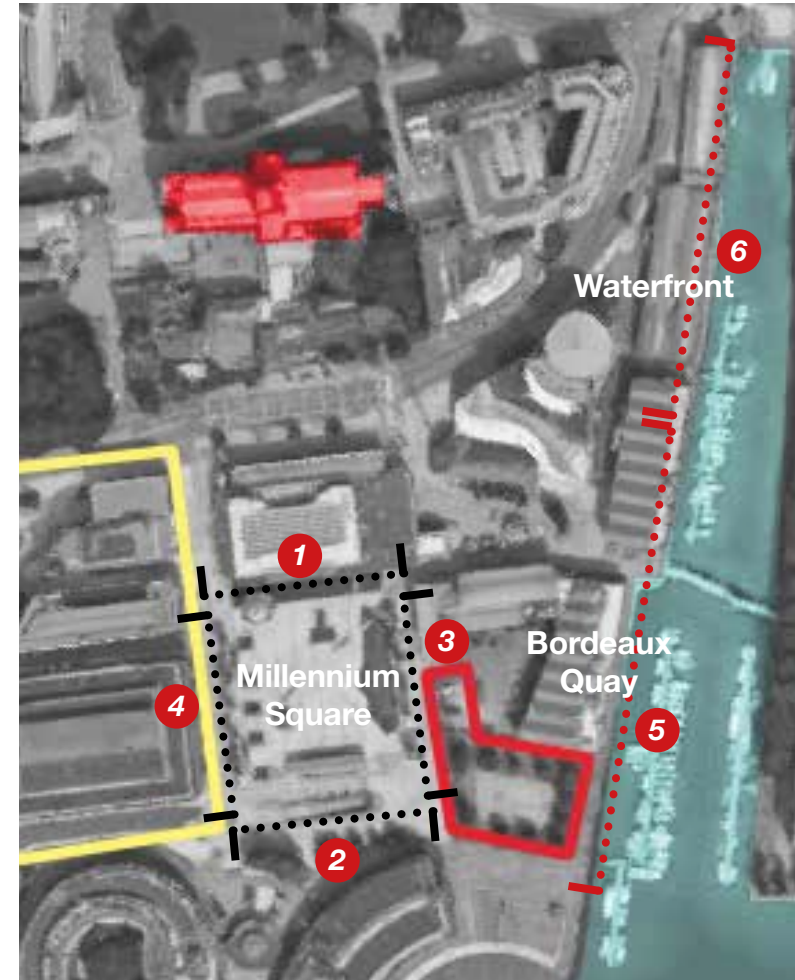




# IMMEDIATE CONTEXT CHARACTER

## MILLENNIUM SQUARE

VIEWES ARE INDICATIVE ONLY



### MILLENNIUM SQUARE

- The site fronts onto Millennium Square to the West.
- The square is surrounded by buildings of multiple different uses, ages, heights and characters.
- The only consistent theme is the way each is formed to frame the square.
- Ventilation Towers and entrances to Millennium car park defines the edge of the square.
- The most successful buildings have active frontages facing onto the square.





# IMMEDIATE CONTEXT CHARACTER

## BORDEAUX QUAY + WATERFRONT

VIEWS ARE INDICATIVE ONLY

### BORDEAUX QUAY + WATERFRONT

- The site faces St Augustine's Reach to the East.
- Along the waterfront, the site sits adjacent to a series of wharf sheds, the majority of which are original buildings that have been reinvented for cultural use and for food and beverage units. This segment of the waterfront is one of the only parts which engages positively with the river's edge to create activity.





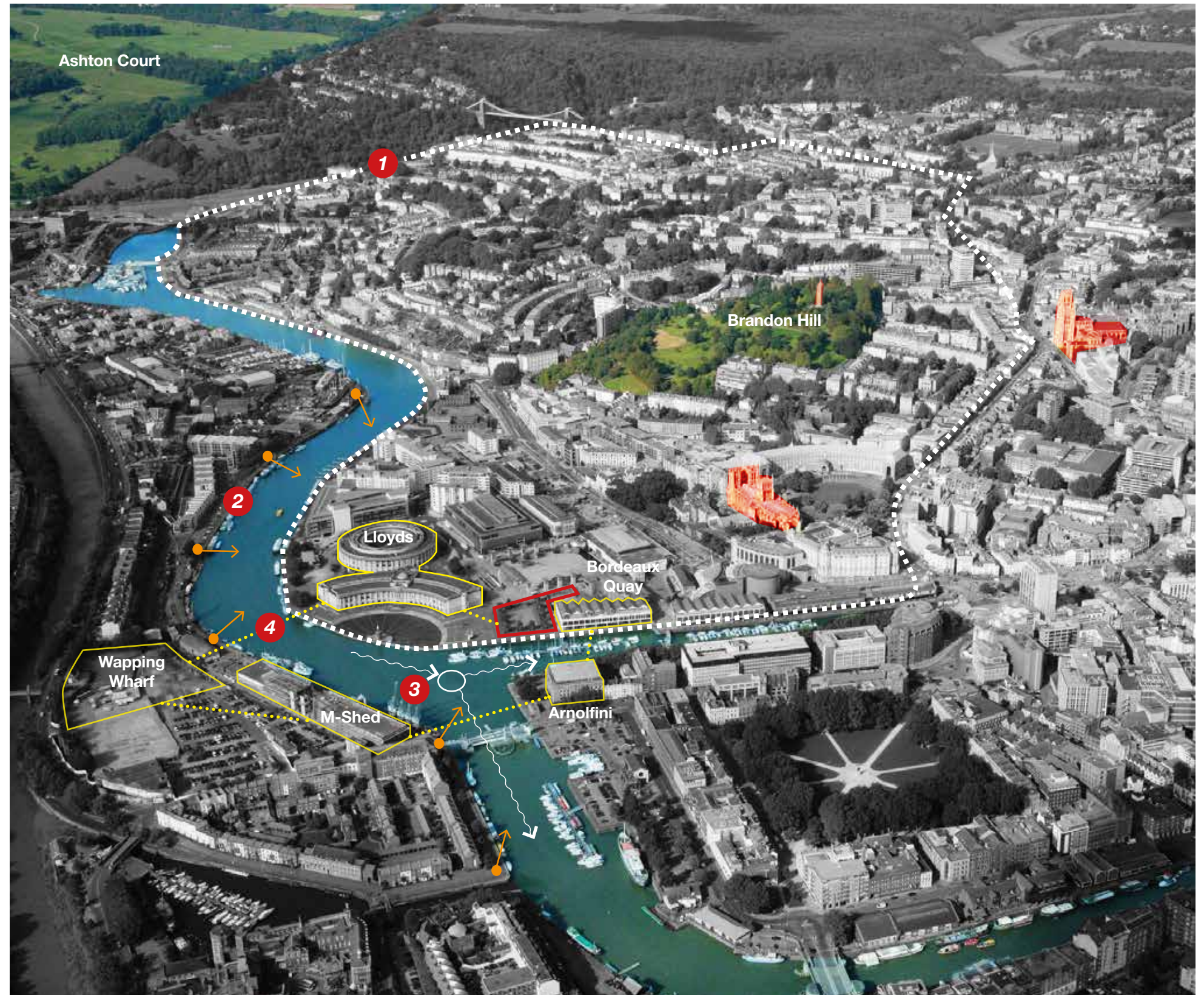
# IN THE CITY

## TOWNSCAPE ARENA

Key consideration of the townscape and visual impact of the building is whether a building of significant scale can be accommodated on this Site in principal. There are a number of important justifications for this, illustrated in the aerial view.

- 1** The Site sits within an arena of townscape from the Harbour to the North.  
Water -> Heritage assets-> Context -> Brandon Hill -> Ashton Court
- 2** Watercourses in Bristol are often where substantial built form is to be found, creating focal points and visual interest.
- 3** The Site lies at the meeting of the watercourses that define the setting of the city, originally the two rivers that framed the city and provided its Harbour.
- 4** Substantial built form within the Site, where there is a void in the townscape, would unify and bind together the collection of substantial buildings around the Meeting of the Waters: Bordeaux Quay, Narrow Quay+ Arnolfini, M-Shed, Wapping Wharf and Lloyds.

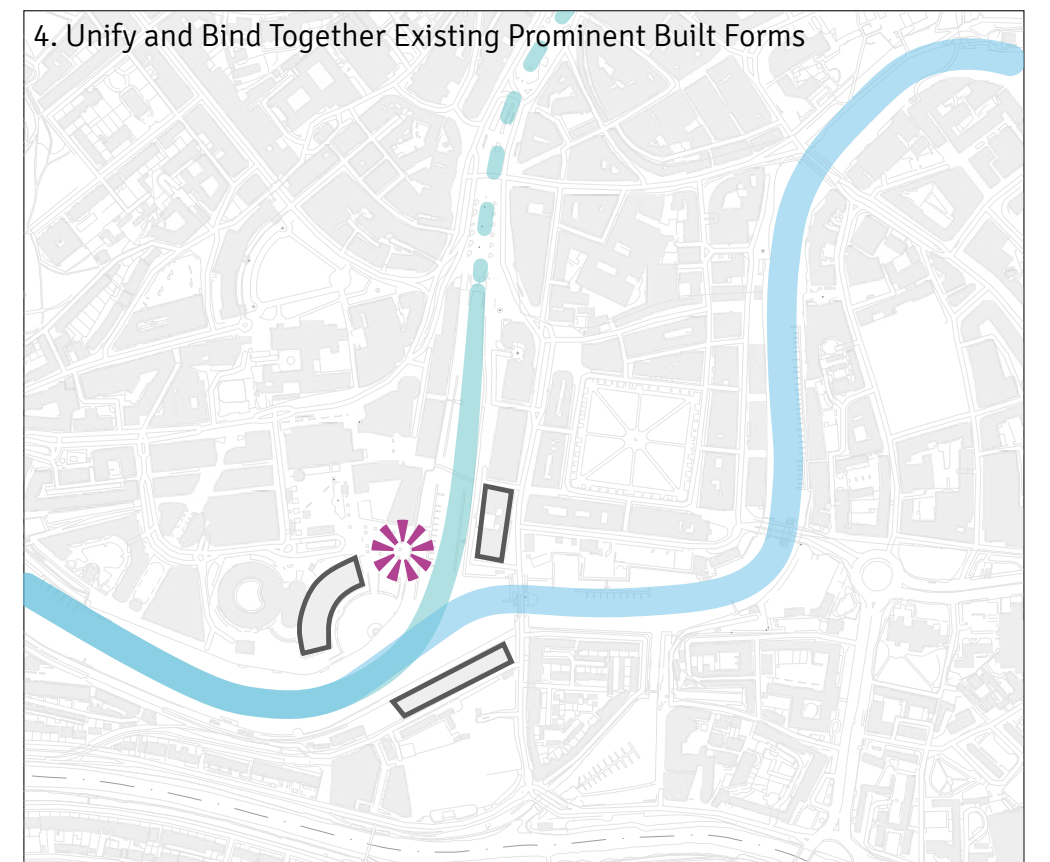
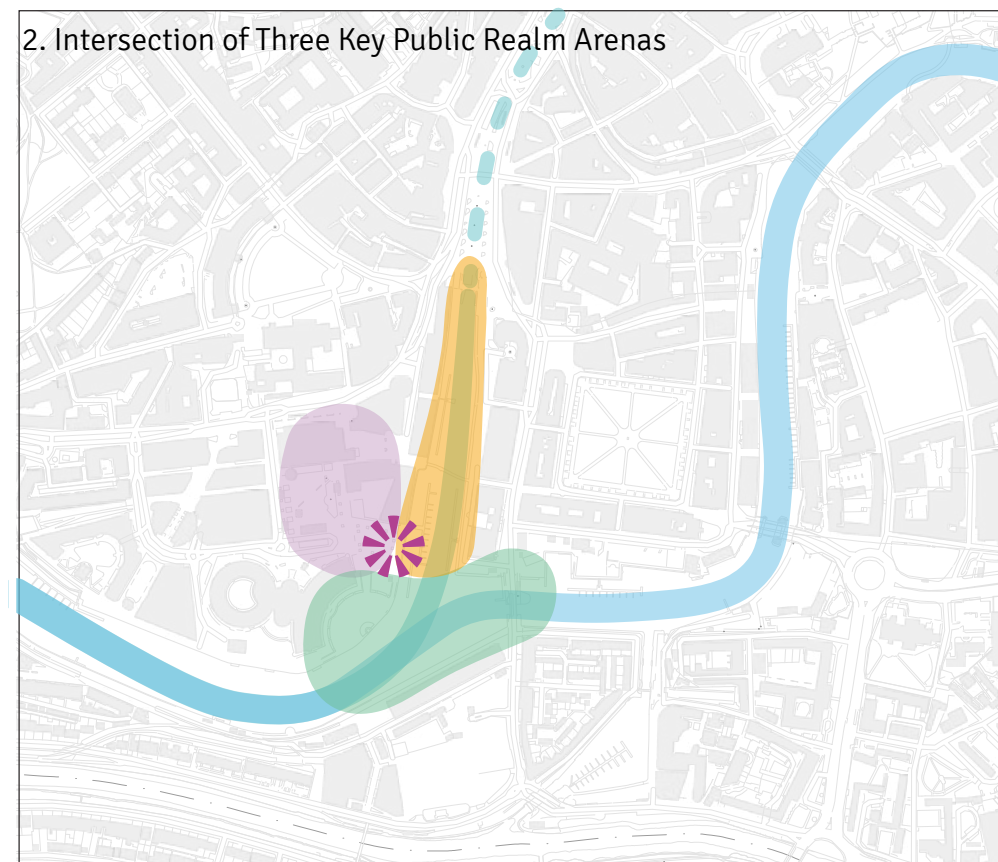
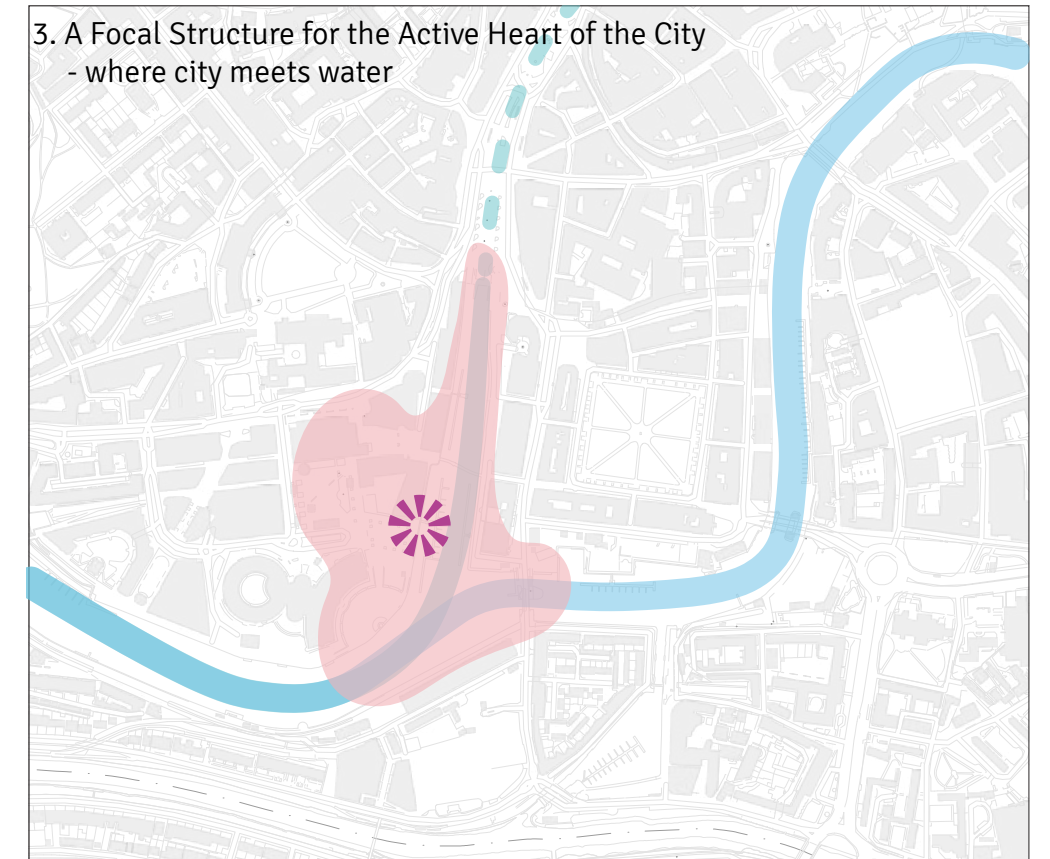
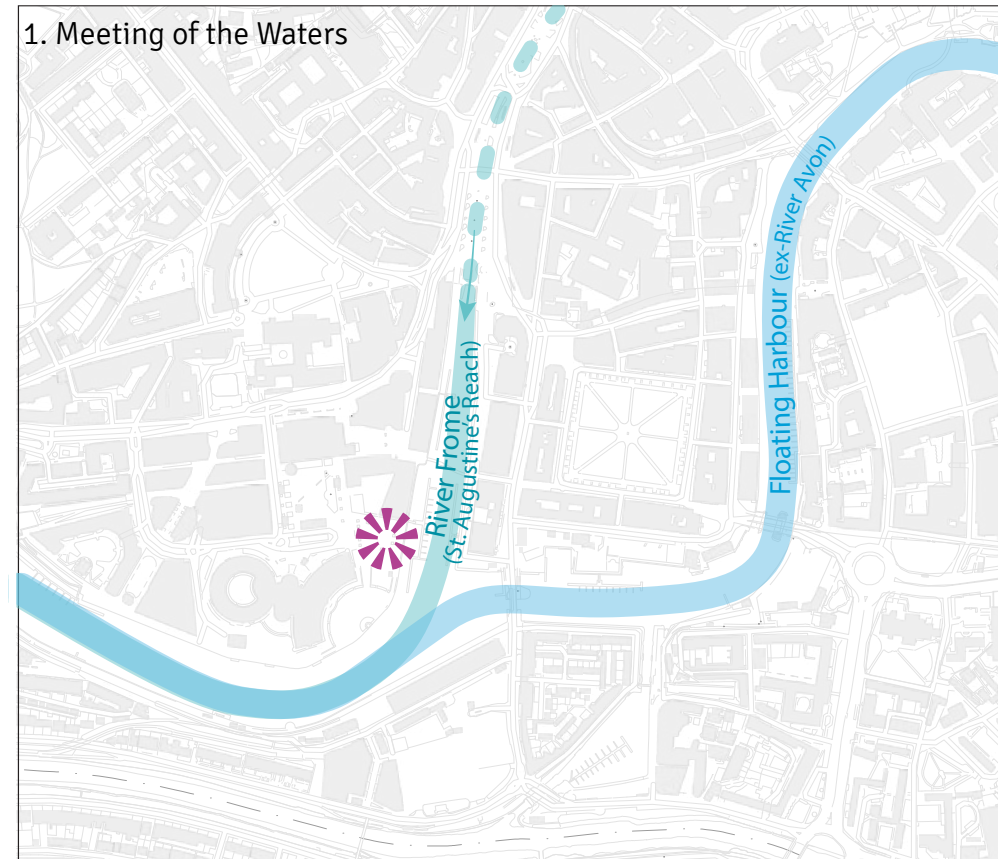
For these reasons, the Proposed Development can rightfully provide a central building of Bristol, not just as part of the dockside at a location to where ships from around the world have travelled, but to express the contemporary strength of the place, combining work and leisure, in this location at the heart of the modern city.





# IN THE CITY

## SITE SIGNIFICANCE

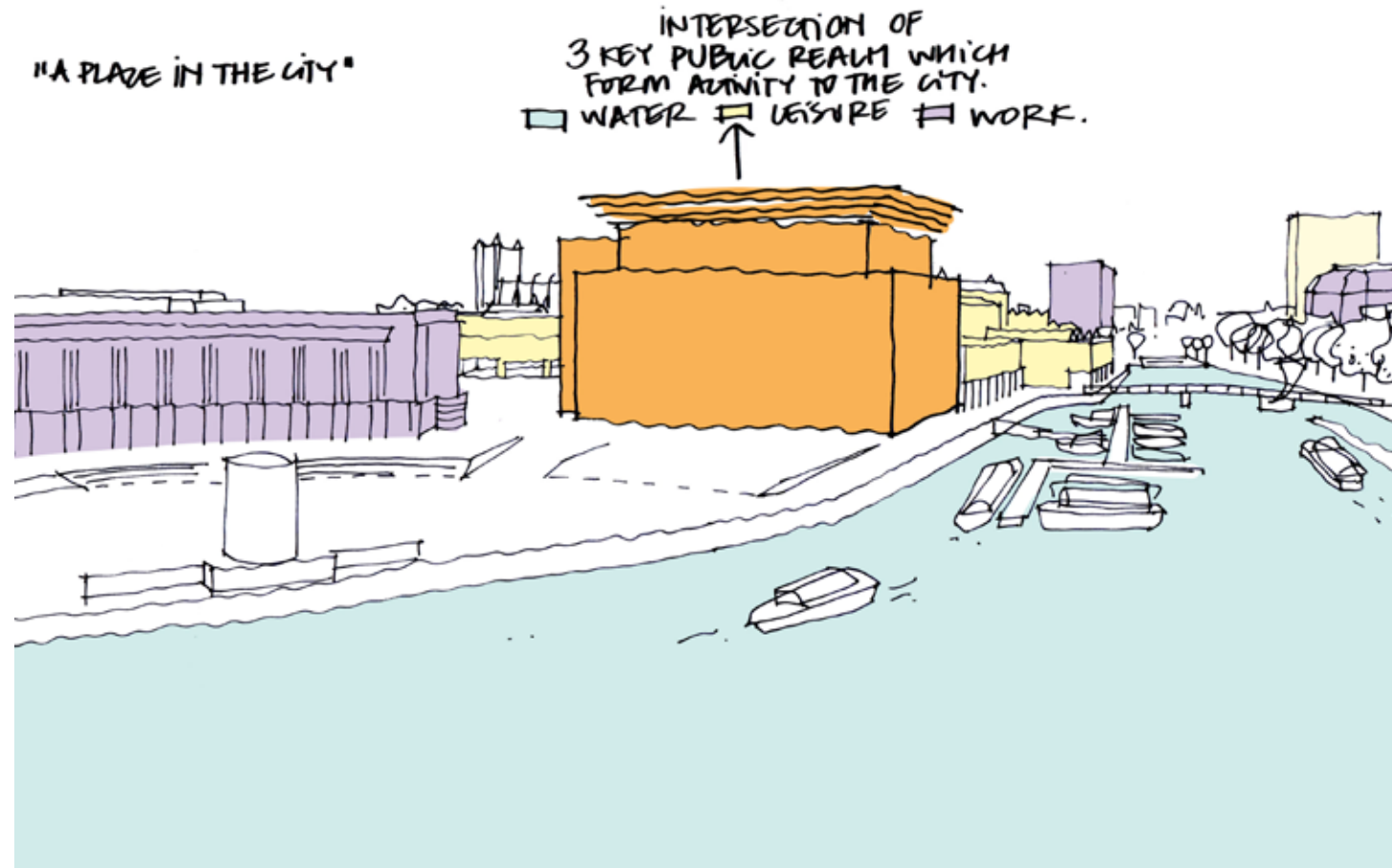




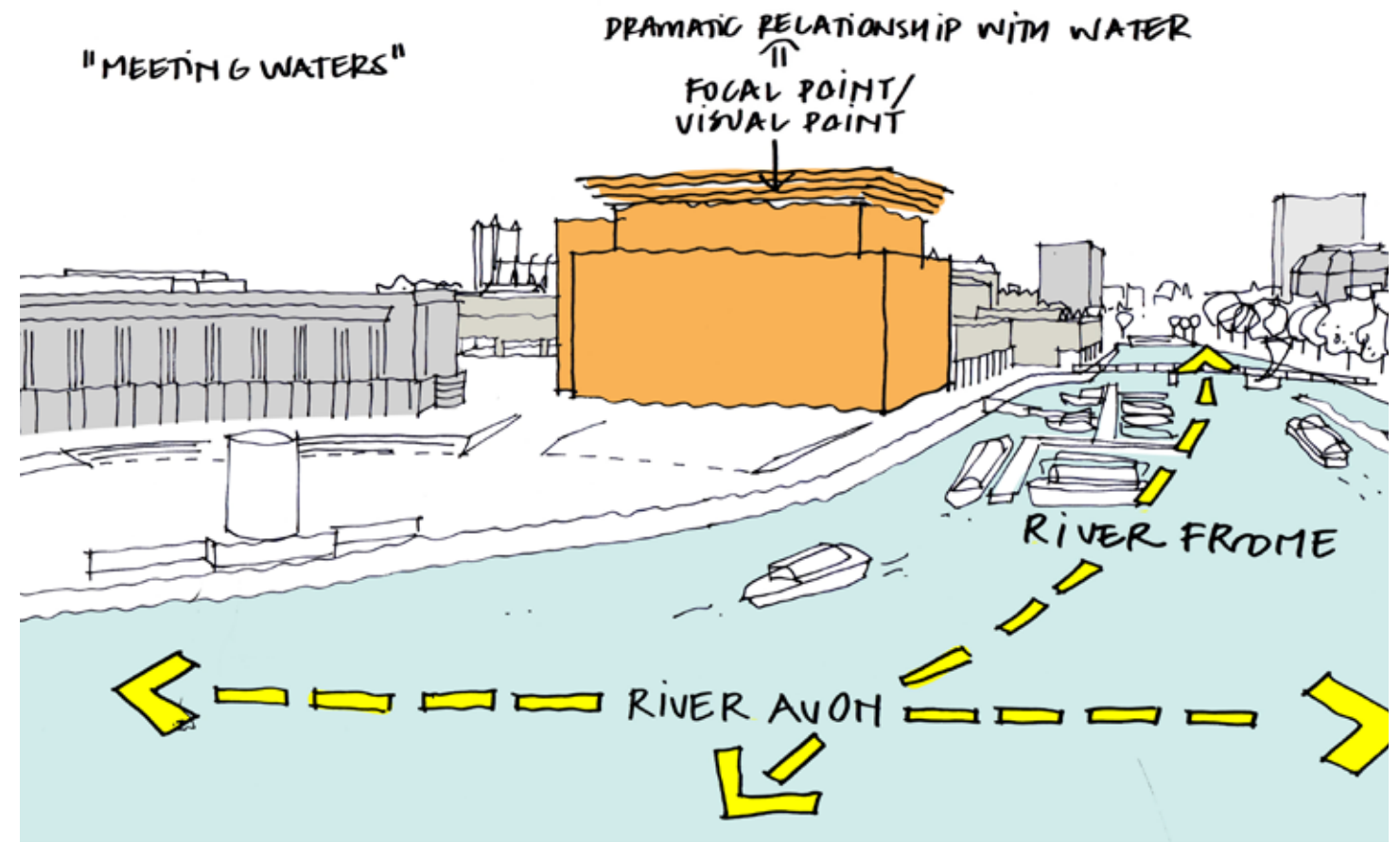
# IN THE CITY

## SITE OPPORTUNITIES

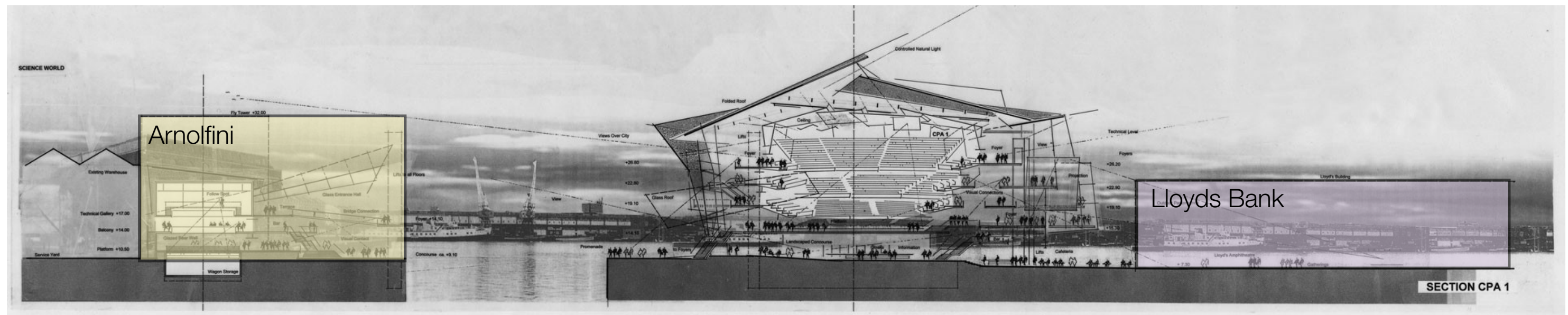
Unique setting of the city...



...where active uses meet



and the water courses intersect

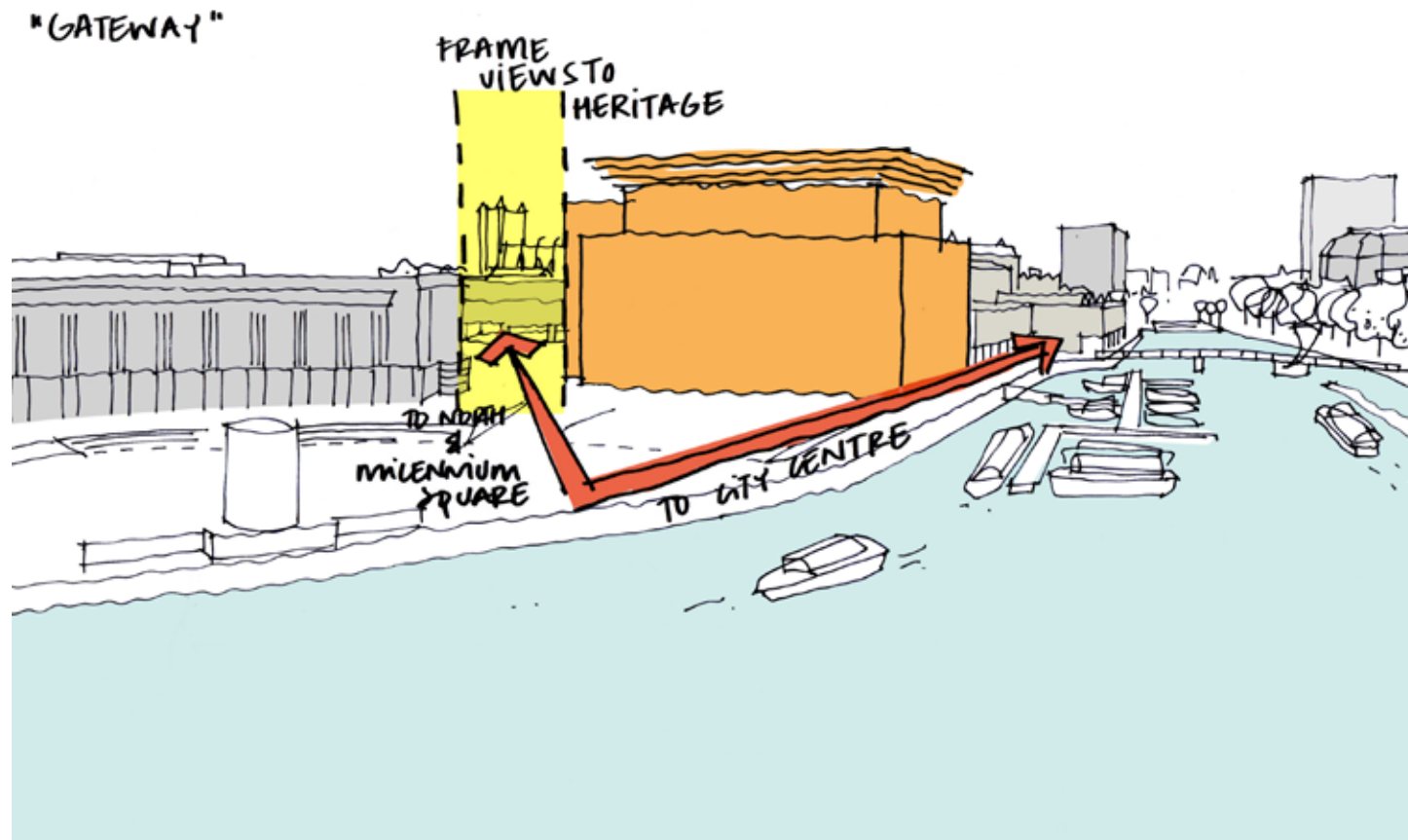




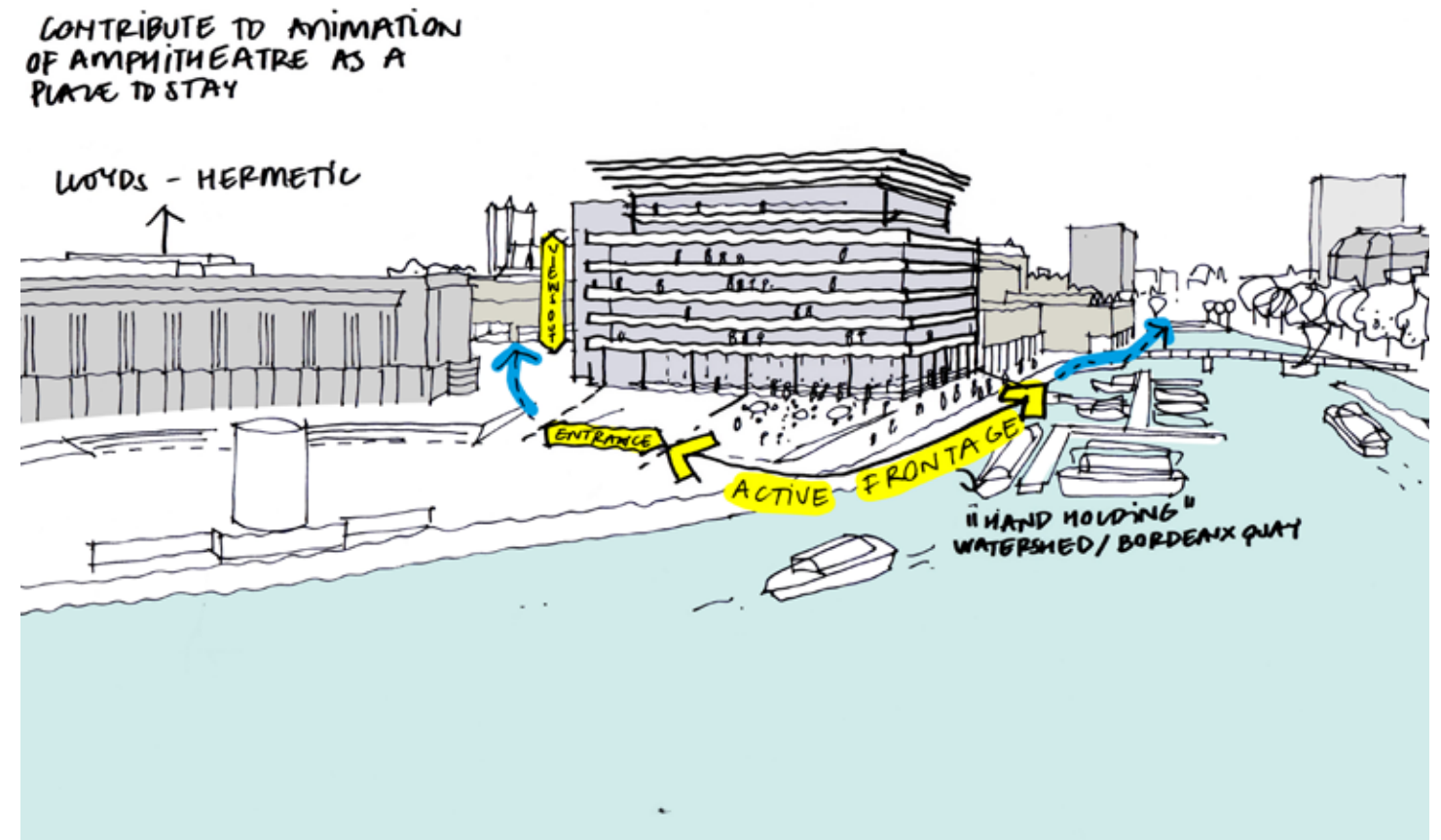
# IN THE CITY

## SITE OPPORTUNITIES

A gateway into the city...



...creating framed views to features to the north + the city



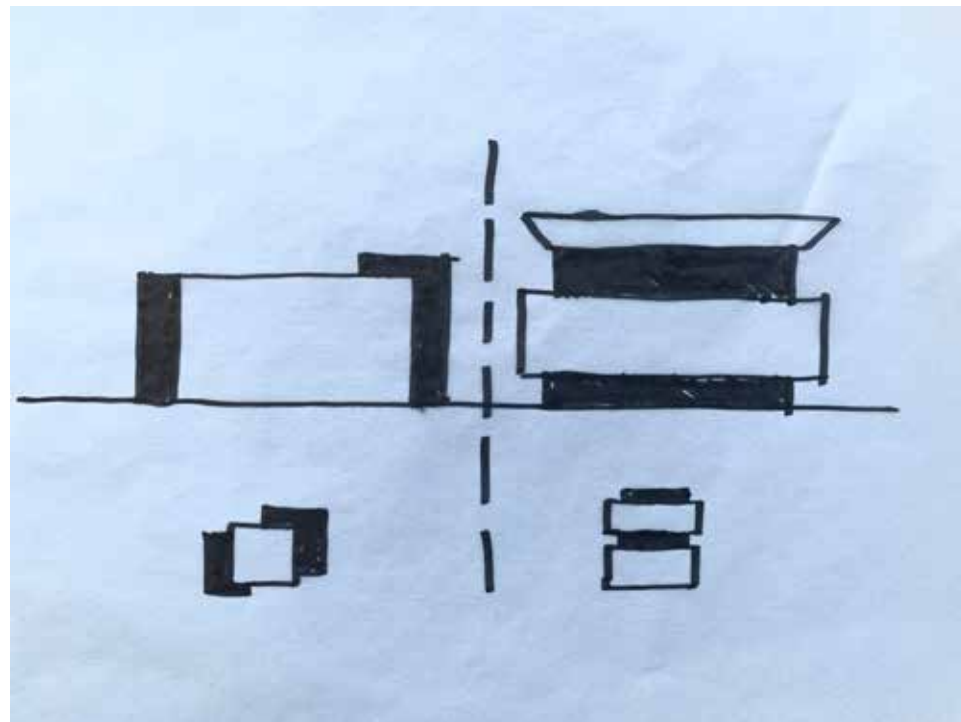
whilst contributing to animation of the amphitheatre as a place to stay rather than a simply pass through



# DESIGN INITIATIVES

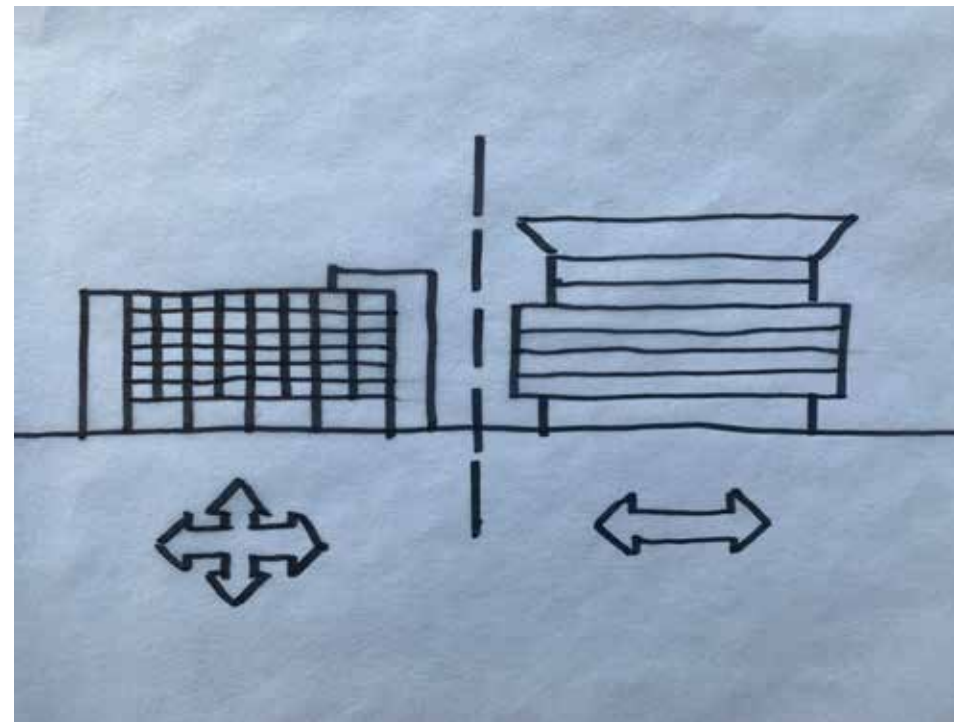
Two buildings tied by shared principles

A Common Language



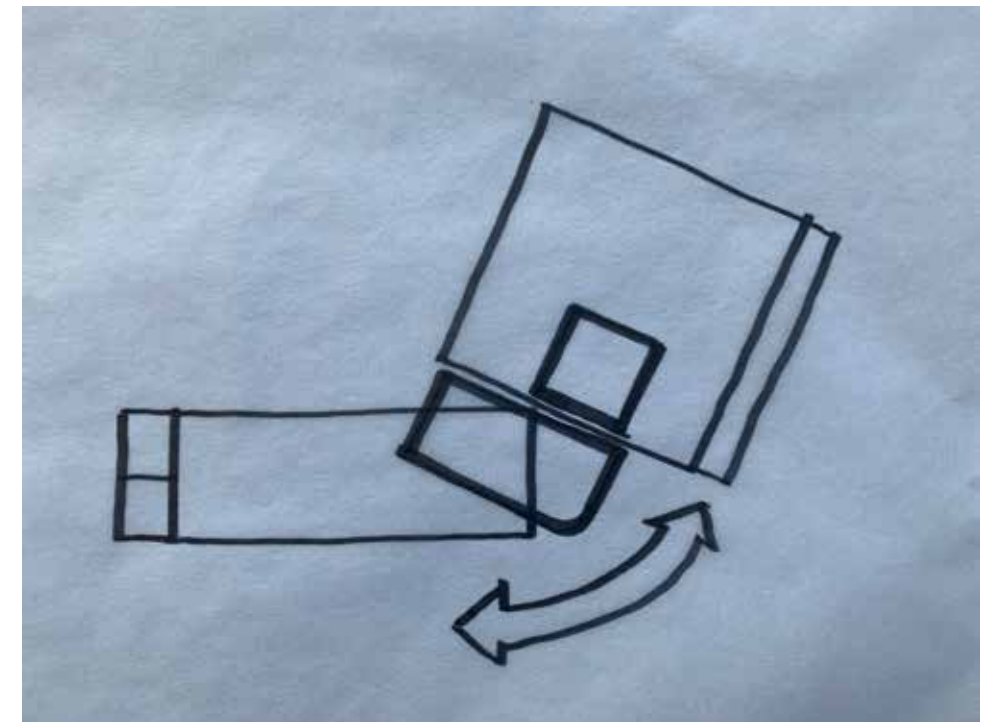
Positive and Negative, or Black and White.  
Vertical for the Hotel and Horizontal for the Offices.

Clearly articulated facades



Hotel facade expressed as a grid, belonging to the warehouse language.  
Office facade expressed as striations, belonging to a nautical language.

Two forms joining at the corner



The hotel rooms and the office floorplates are gathered into two simple forms; one square and one linear. These forms meet at the corner of Millennium Square and the Amphitheatre. The building cores are located here as a central element to turn the corner.

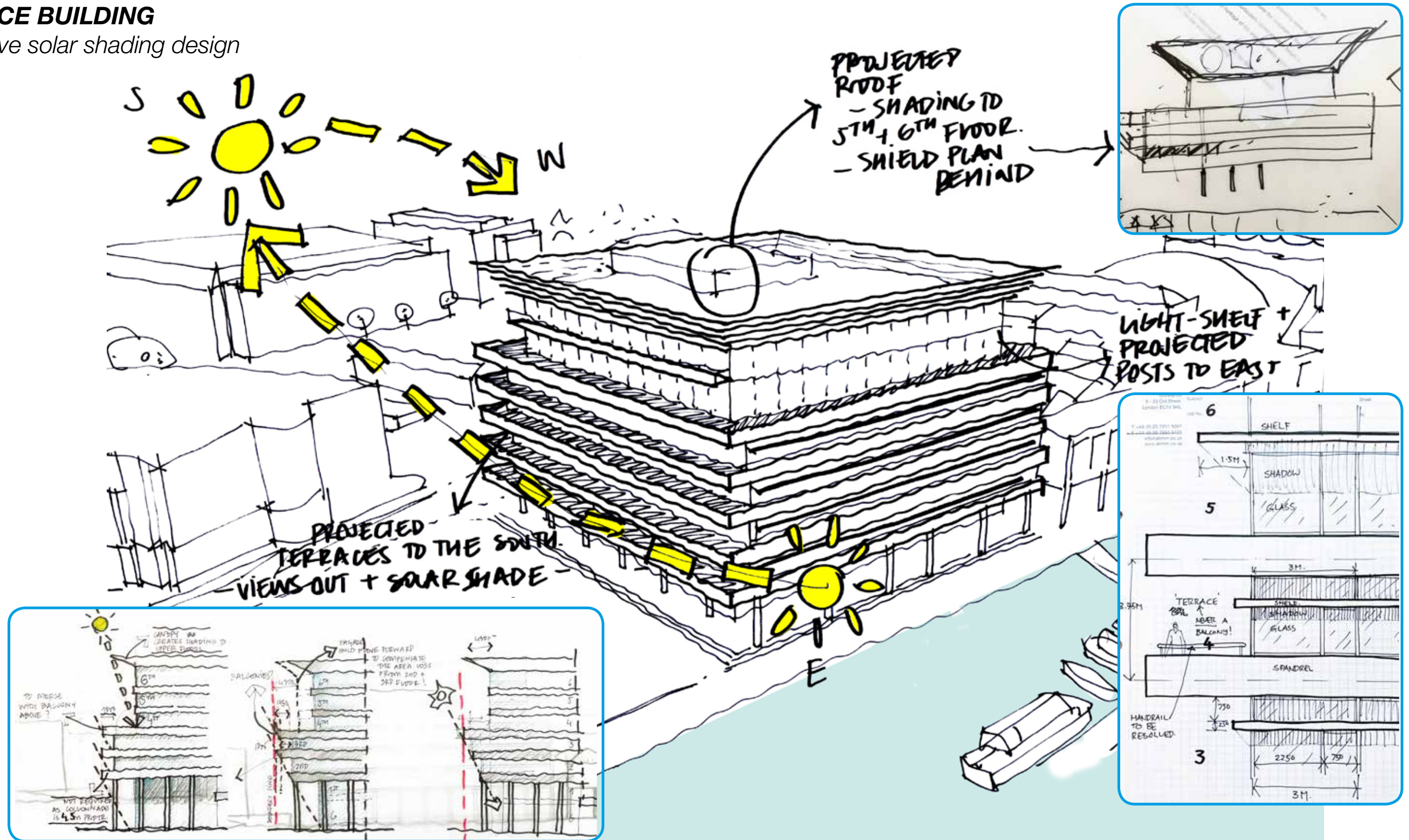


# SCHEME DESIGN

## BRINGING THE ELEMENTS TOGETHER

### OFFICE BUILDING

Passive solar shading design



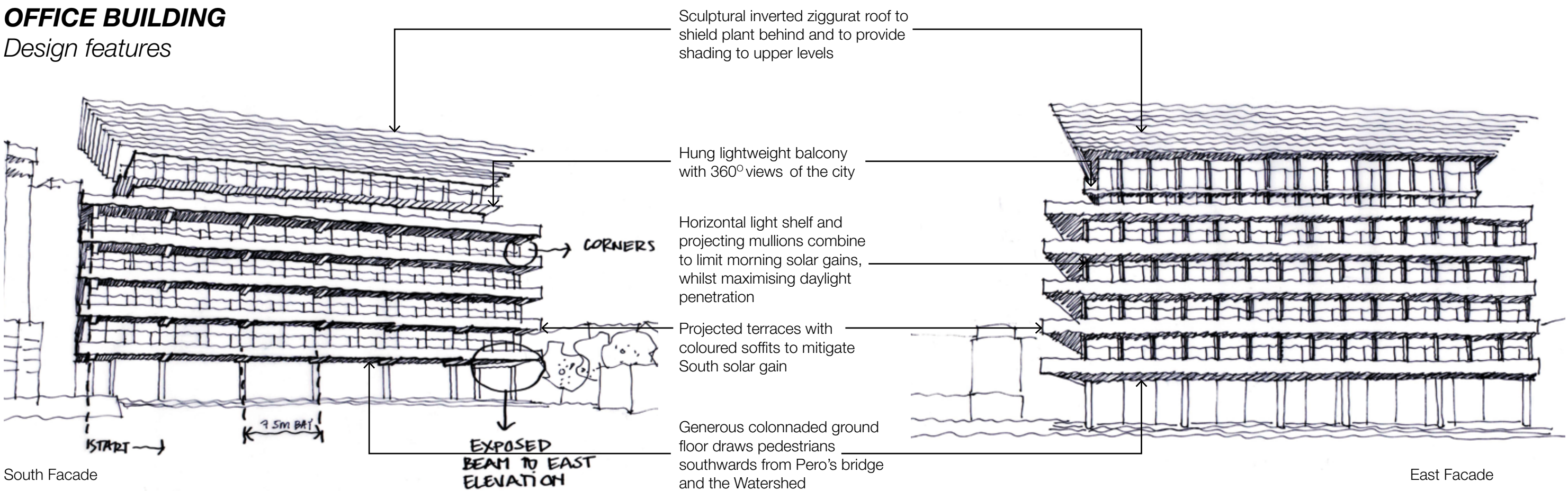


# SCHEME DESIGN

## BRINGING THE ELEMENTS TOGETHER

### OFFICE BUILDING

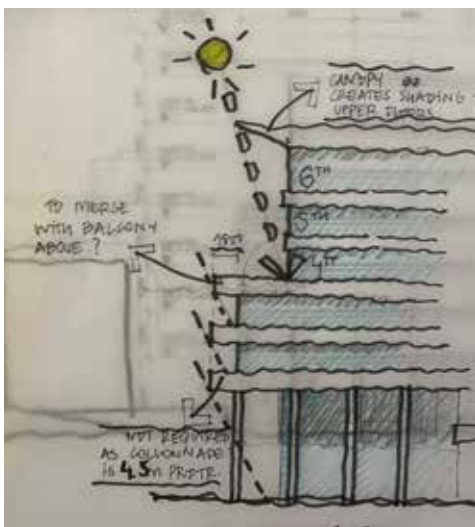
Design features



### Passive solar shading



Deep recesses to mitigate solar gain



### Distinctive design



Coloured soffits as visual highlight to engage passers by

### Materials



Textured white/ gold Terracotta cladding



Dark Grey/ Black window frames



Concrete structure

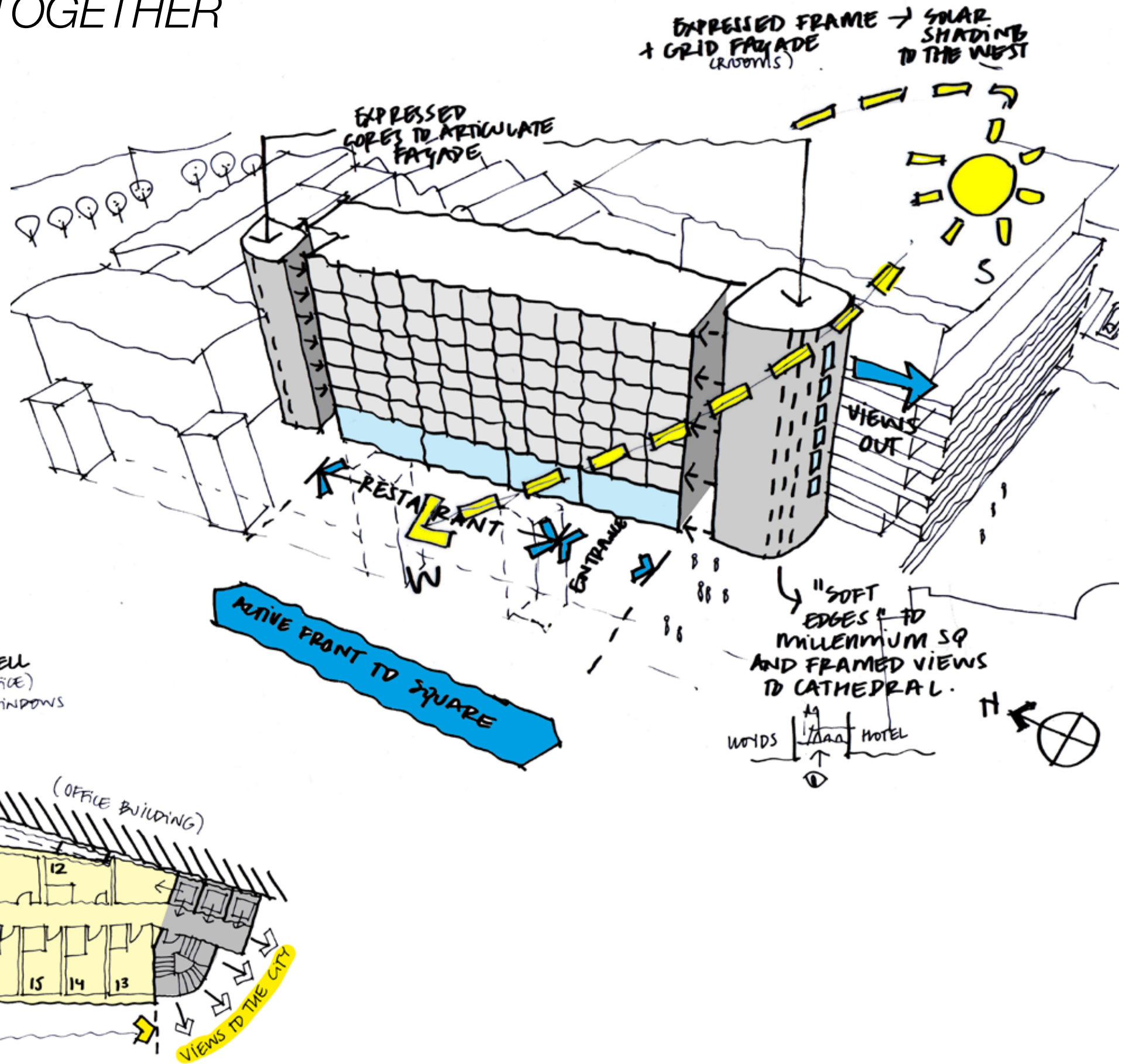
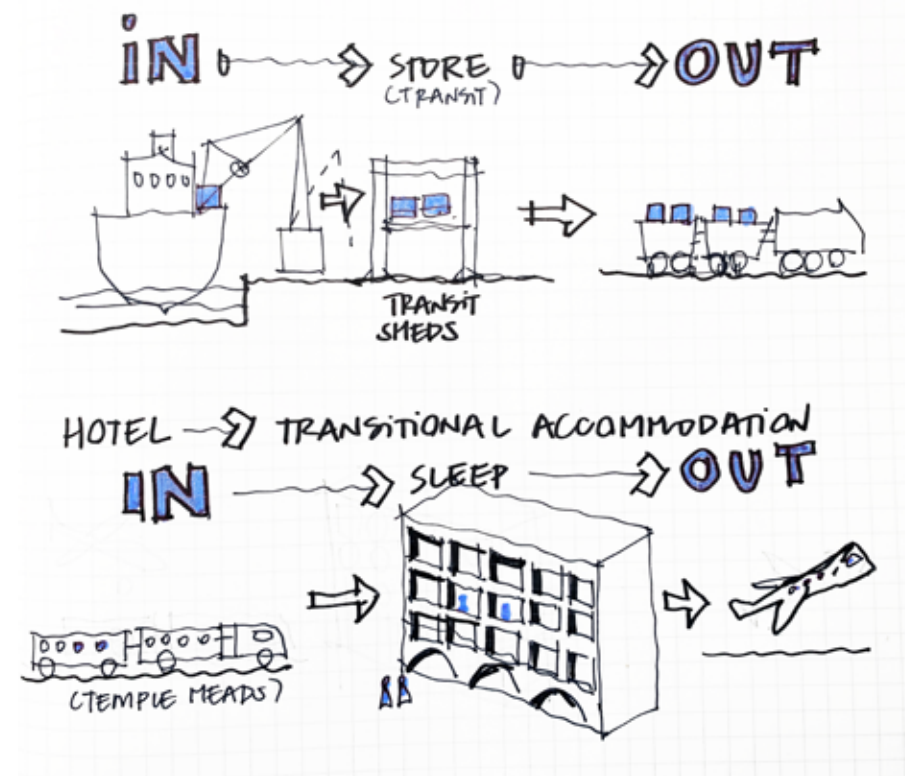


# SCHEME DESIGN

## BRINGING THE ELEMENTS TOGETHER

### HOTEL BUILDING

Design features



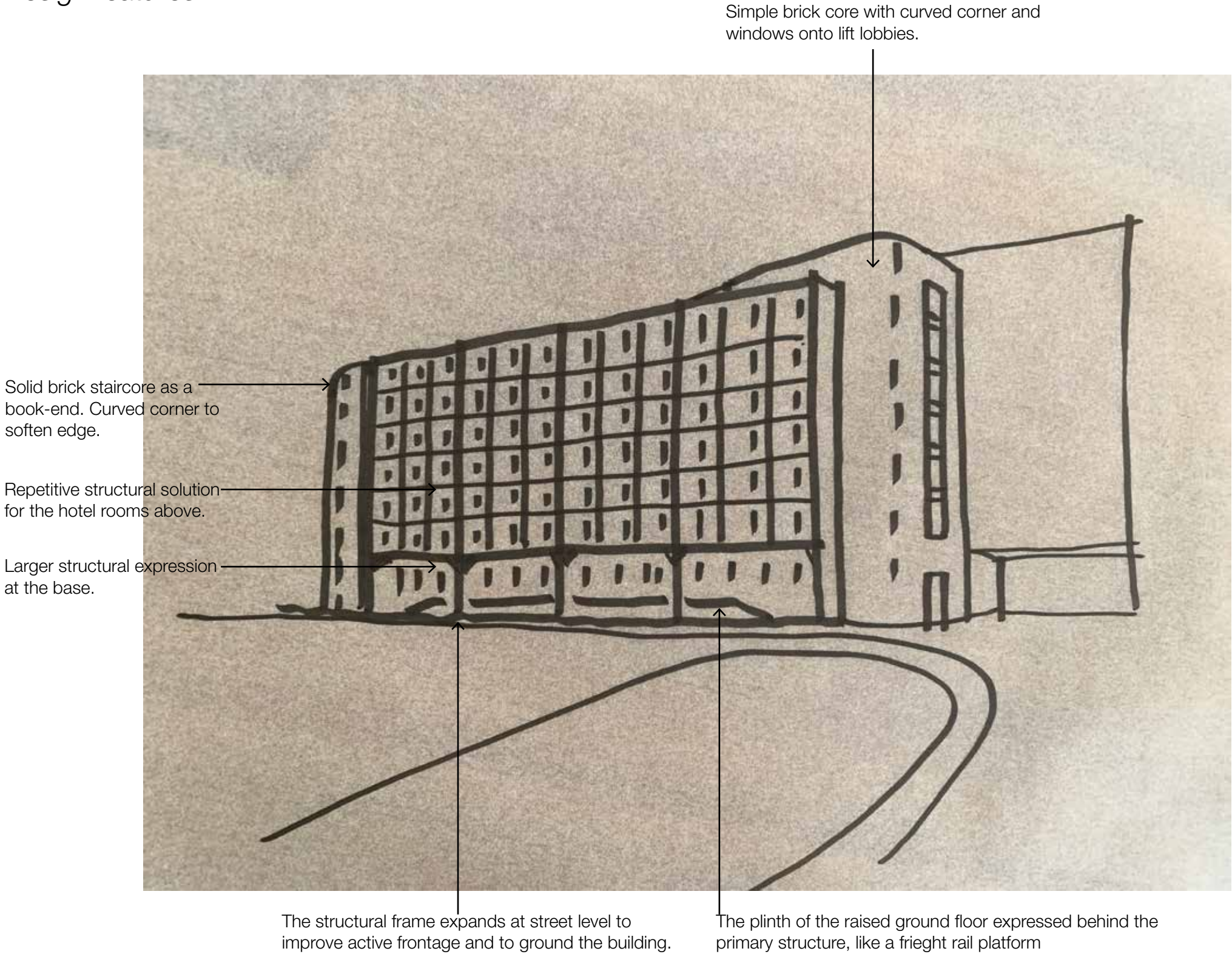


# SCHEME DESIGN

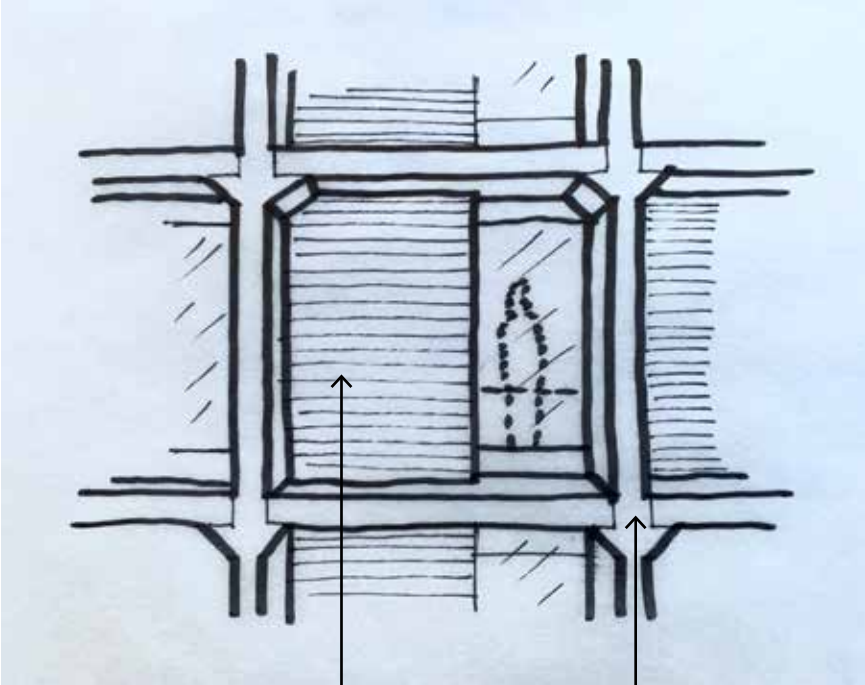
## BRINGING THE ELEMENTS TOGETHER

### HOTEL BUILDING

Design features



Sketch of typical hotel room facade bay.



Engineering brick infill White concrete frame



Staffordshire blue brick



Staffordshire blue brindle



Precast concrete

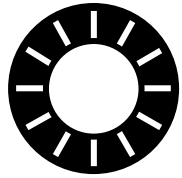


# SOLAR SHADING STUDY

## MODEL INPUTS

### Model Assumptions

The below assumptions have been made for this study.

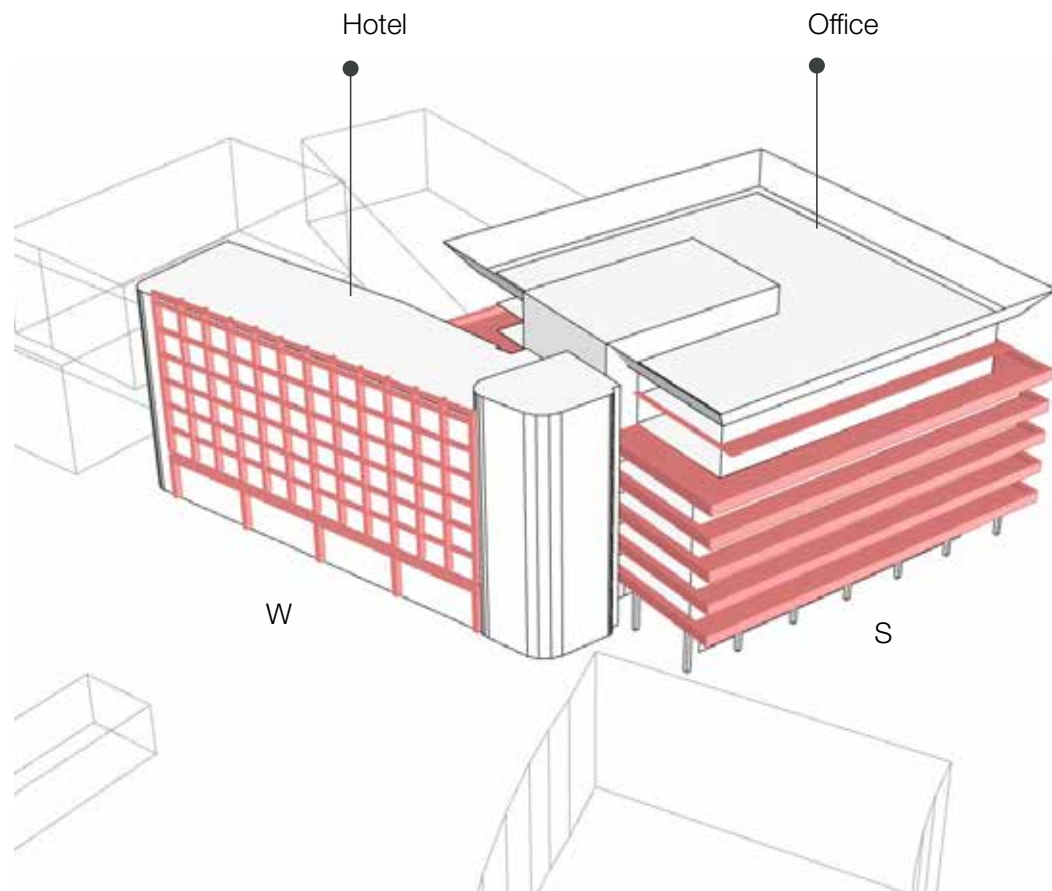


### Weather File

- 2030\_Bristol\_a1b\_50\_percentile\_DSY.epw
- Summer May - Sep

### Tested Buildings

- The below shows the selected buildings, **office** and **hotel** for testing.
- Each building is tested first as a base case with no solar shading to establish the solar radiation on the façades. Then shading is added (in red below) to show effectiveness of each strategy as designed.
- The results are qualitative only and further modelling would be required to establish optimal shading geometry.



### Summary and Further Work

#### Office

- The results show that the horizontal balconies applied to the office greatly benefit the south facade where solar gain is most problematic.
- The horizontal light shelves also provide shading but the current vertical baffles are not so effective on the east facade.
- The upper levels of the east facade are exposed in the current design and require additional solar mitigation.
- Glazing ratios, glazing specification have not been evaluated and would be explored further to quantify the benefits of the shading strategy.

#### Hotel

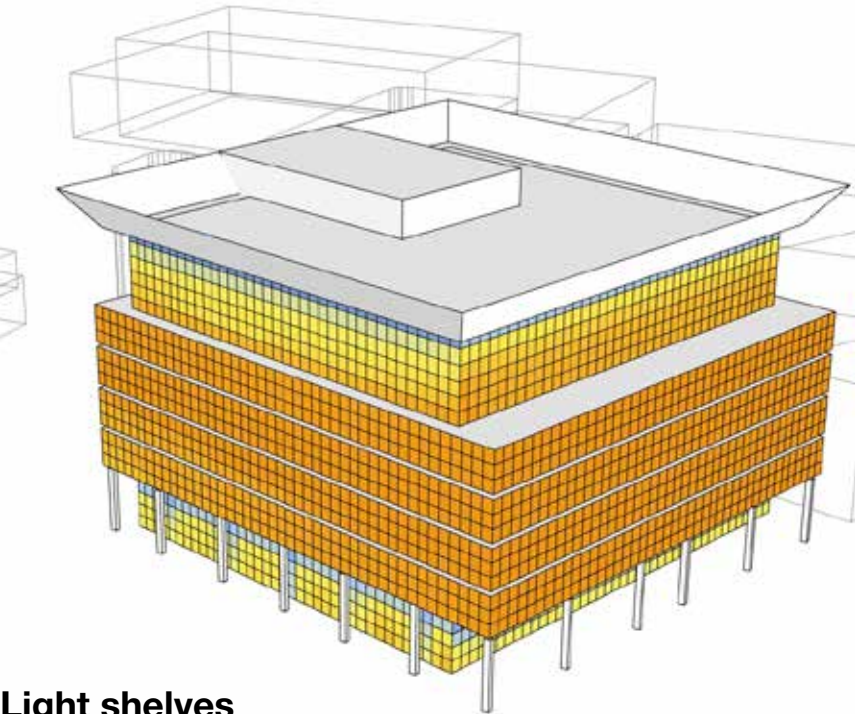
- The external frame reduces solar gains onto the facade. However, current glazing ratios and glazing specification have not been taken into account and will be explored to quantify the shading and optimise the facade design.



# SOLAR SHADING STUDY

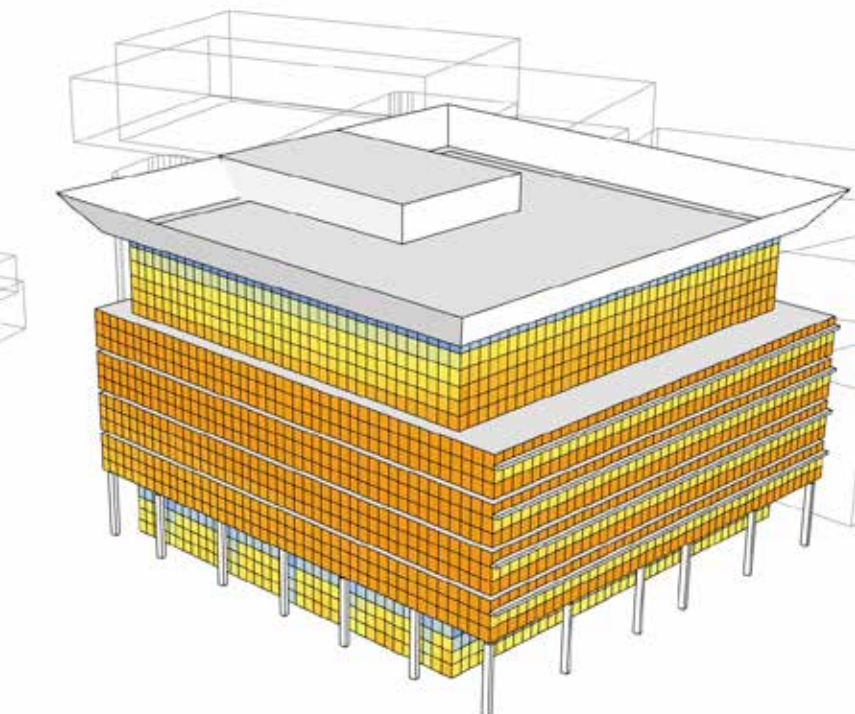
## OFFICE S/E VIEWS

Base - No Shading



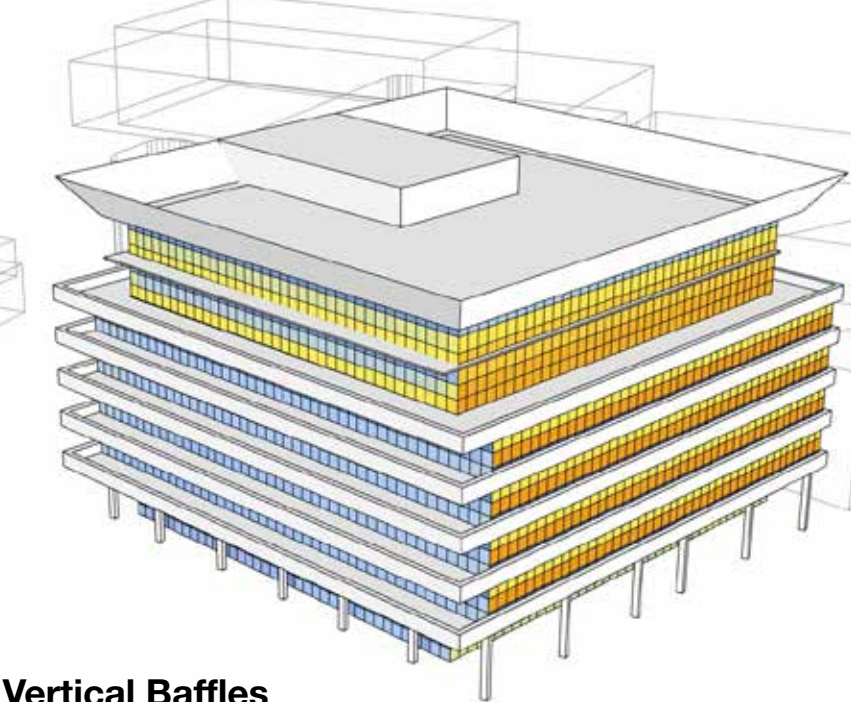
### Light shelves

- Light shelves effective on E facade as it is slightly south facing.



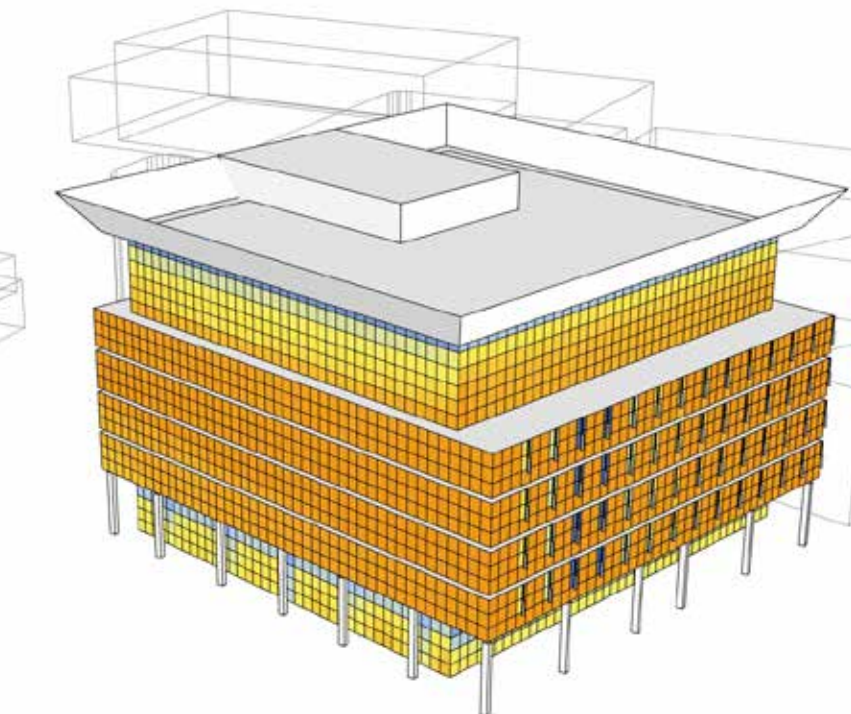
### Balconies

- Balconies effective in reducing solar gains on S facade due to high angles sun.



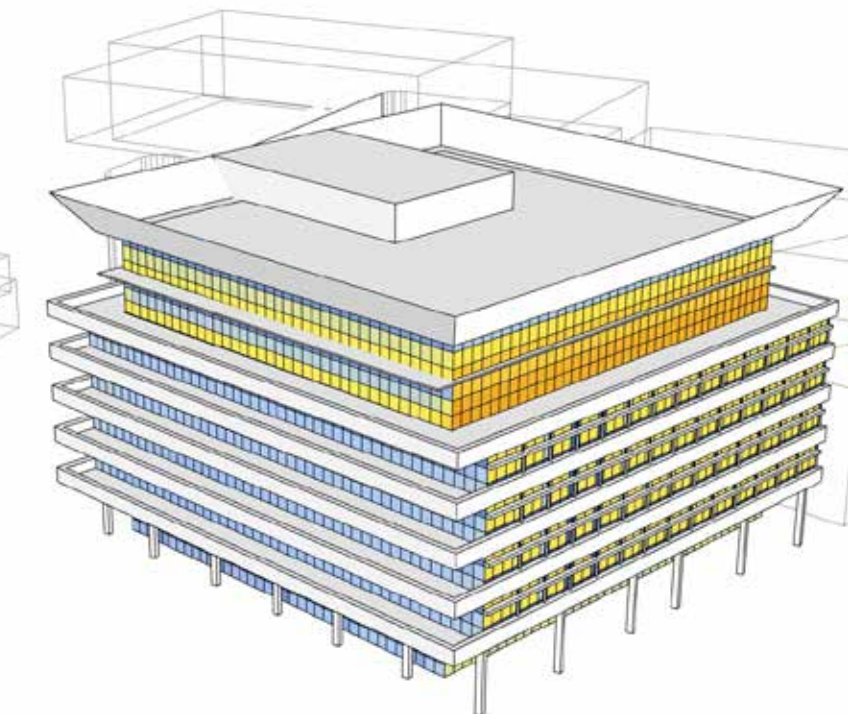
### Vertical Baffles

- Baffles would need to be deeper or more frequent to increase shading effect.

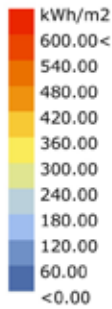


### Current Design - All Shading

- Vertical baffles have limited shading benefit when compared to balconies and light selves.
- The upper E facade would require some solar mitigation.



May - Sep



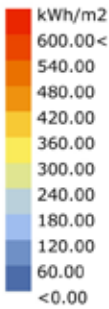
This building performance assessment has been prepared by Allford Hall Monaghan Morris Limited solely in relation to the project which is the subject of the assessment. It is based on background information current at the time of issue and on limited information and guidance supplied by others and is prepared for information purposes only. All performance figures in this assessment are approximate. Such performance figures are likely to be affected by many other issues not addressed in this assessment (including without limitation, energy modelling software calculation methodologies, the variations in which can effect results, user operation, construction tolerances, workmanship, window configurations and changes inherent in design development and construction processes). The performance figures and the assessment as a whole should therefore be viewed alongside other such information before making any decisions on the basis of the assessment and the predictions contained in it. All copyright in this assessment shall remain vested in Allford Hall Monaghan Morris Limited and Allford Hall Monaghan Morris Limited accept no liability for any costs, losses, claims, proceedings, damages and expenses arising from use of this assessment whatsoever.



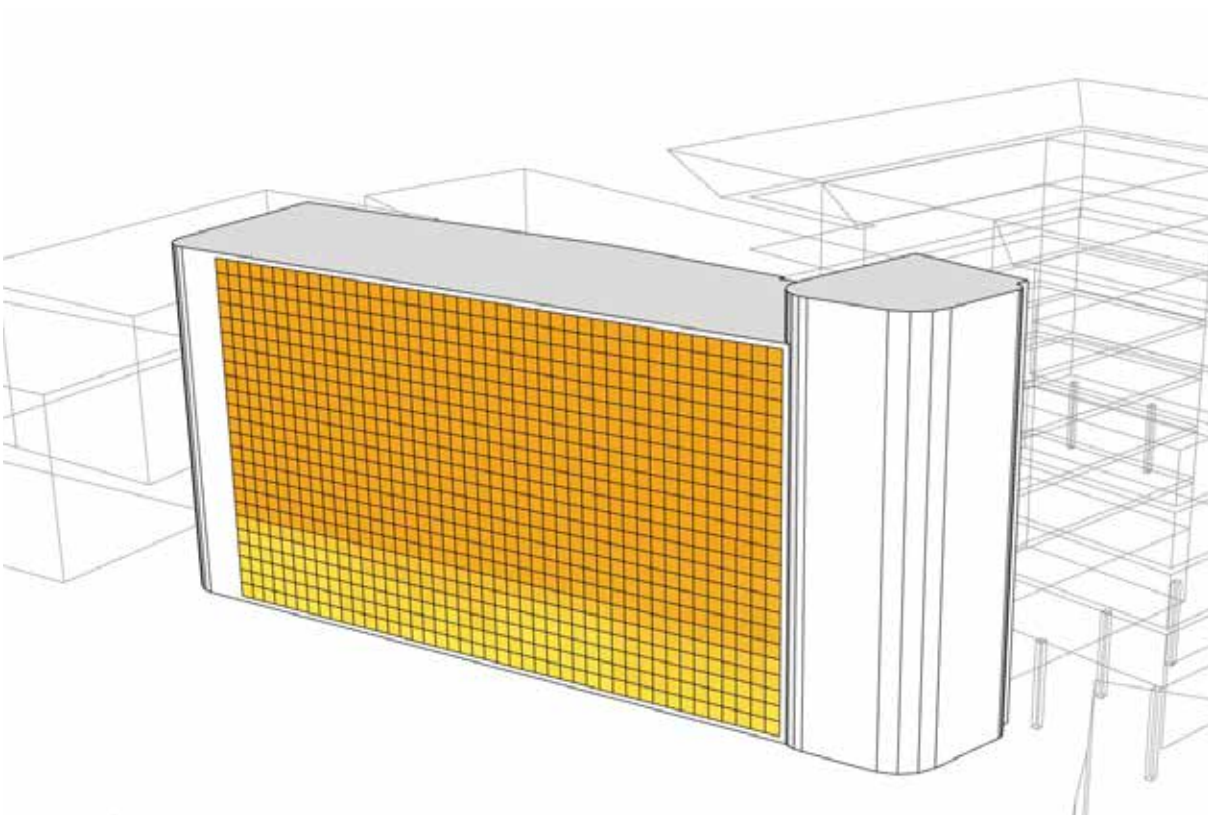
# SOLAR SHADING STUDY

## HOTEL W VIEW

May - Sep

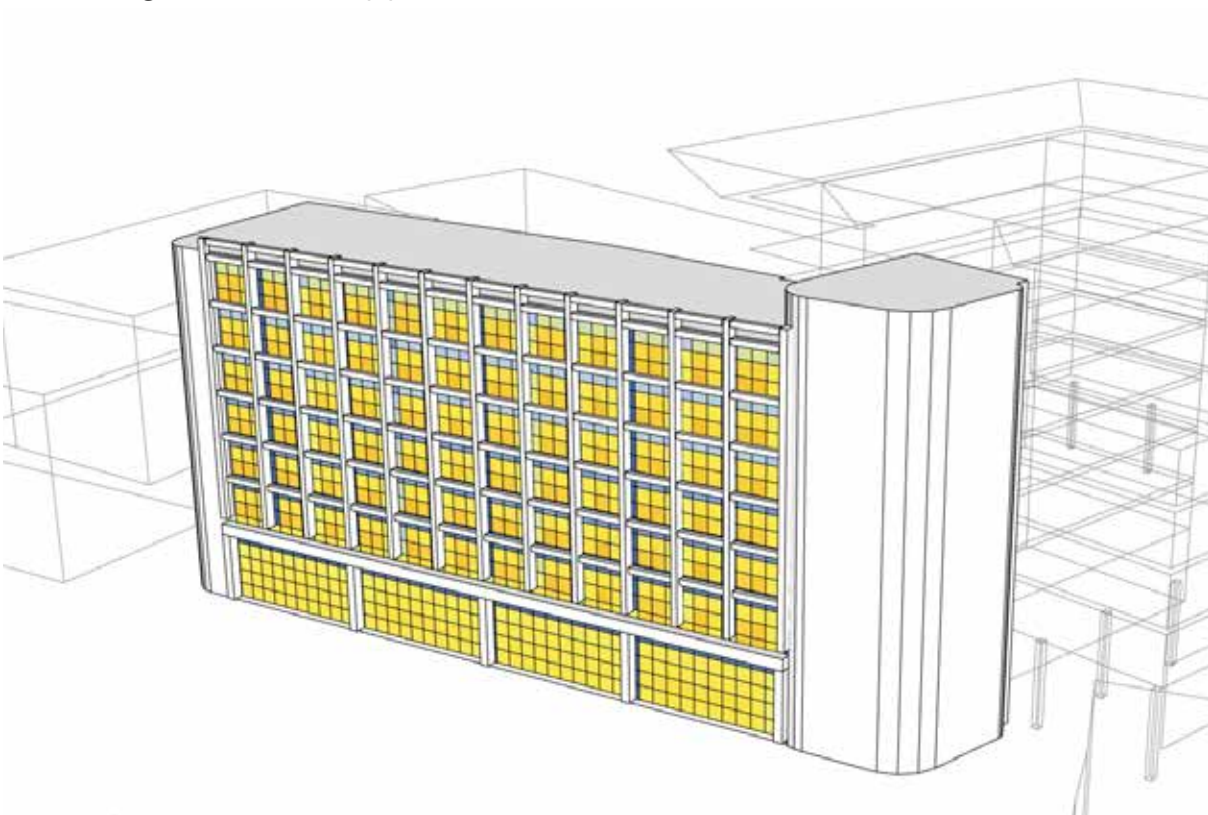


Base - No Shading



Frame

- The frame provides both horizontal and vertical shading and reduces solar gains on the upper levels.





# GROUND FLOOR PLAN

1:375 Scale at A3 size

Office Building:

1

 Reception & waiting

2

 Cycle entrance

3

 Cycle facilities

4

 Lift lobby

5

 Transformer chamber

6

 Bin store

7

 Plant

8

 Building manager and staff welfare

Hotel Building:

9

 Reception & lounge

10

 Linen Room

11

 Restaurant + Kitchen

12

 Transformer chamber

13

 Bin store

14

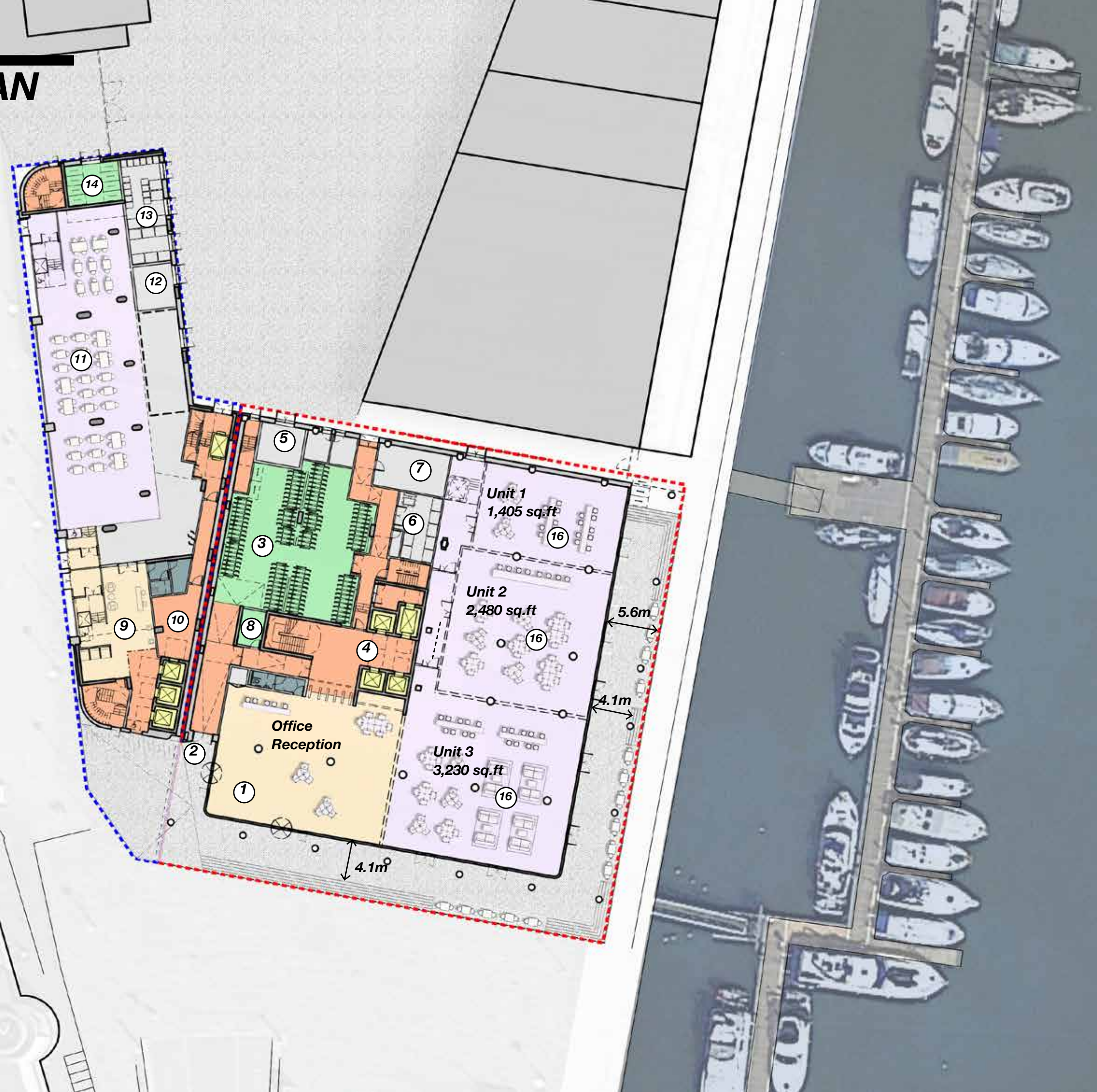
 Cycle facilities

15

 Plant

16

 Food & Beverage Units





# MEZZANINE FLOOR PLAN

1:375 Scale at A3 size

## Office Building:

- ① Cycle facilities
- ② Staff welfare
- ③ Plant
- ④ Stair core

## Hotel Building:

- Office
- ⑤ Staff welfare
- ⑥ Plant
- ⑦





# TYPICAL FLOORS

1:375 Scale at A3 size

## Office Building:

- ① Lift lobby
- ② Washrooms
- ③ Main stair (doors on hold-opens)
- ④ Alternative means of escape
- ⑤ Terrace

## Hotel Building:

- ⑥ Lobby
- ⑦ Service lift
- ⑧ Linen Room
- ⑨ Standard room
- ⑩ Disabled room





# UPPER FLOORS

1:375 Scale at A3 size

## Office Building:

- ① Lift lobby
- ② Washrooms
- ③ Main stair (doors on hold-opens)
- ④ Alternative means of escape
- ⑤ Terrace

## Hotel Building:

- ⑥ Lobby
- ⑦ Service lift
- ⑧ Linen Room
- ⑨ Standard room
- ⑩ Disabled room





## ***VIEW FROM AMPHITHEATRE***





## ***VIEW FROM MILLENNIUM SQUARE***

